A HISTORY OF ARCHITECTURE

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VOLUMES I AND II

BY

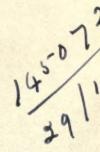RUSSELL STURGIS, A.M., Ph.D.

VOLUME IV

BY

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VOLUME IV—GOTHIC IN GREAT BRITAIN—
RENAISSANCE—MODERN ARCHITECTURE

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BOOK XIII.—GOTHIC IN GREAT BRITAIN

CHAPTER I

GOTHIC IN GREAT BRITAIN

A<small>N</small> exceptional position is taken by England. She is a splendid second to France in the race for honor, leaving other countries hopelessly distanced. More than this, while what is considered the orthodox system of Gothic construction and decoration was born in France, England may claim that she experimented independently in its basis, the ribbed cross-vault, about as early as this was done in France. England also from the beginning made an independent application of Gothic principles and developed its artistic forms under different norms. She soon contributed original elements to the common stock, in ground-plans, systems of subsidiary vaulting-ribs and forms of tracery. Her façades, proportions, profiles, relations of solids to voids, scheme of decorative features, were all national products. No European country showed such a dominance of national traits.

The political preponderance of England, during the greater part of the Early and Middle Gothic Age, combined with her artistic vitality to ensure her an influence in other countries second only to that of France, though it has not been as yet properly studied and estimated. During the Romanesque era England had erected the largest and most sumptuous buildings in the world, and she entered the Gothic age with this splendid inheritance. The English influence was particularly strong in Scandinavia (especially Norway), Portugal, Spain, parts of North Germany and even France. In all these countries except France, England shared with the Cistercians of Burgundy and with the lay architects of Northern France in the introduction of the new forms. The case was, of course, different in France. Here English influence was of two sorts: first it showed itself quite early in provinces in close political connection

with England; secondly, after the devastation of France by the English and the civil wars of the XIV and early XV centuries, the revival of French Gothic was carried on largely under the spell of the magnificent works which had been erected almost continuously in England while France had been artistically sterile. The most prominent sign of this fact was the adoption of English Decorated, especially curvilinear, tracery, which on the Continent developed into the Flamboyant, and was one of England's biggest contributions to the general Gothic stock. If one stops to remember that at one time the provinces of France under English domination extended from the Channel to the Pyrenees, it becomes more than a casual event that English stone-masons should have been sent to Bordeaux to build its early Gothic cathedral, and that the cathedrals of Bayeux and Evreux, the church of St. Pol de Leon and many more, show how often features of the buildings of Normandy and Brittany were common to the cathedrals of England. On the other hand, it is curious how little architectural sign there is of connection between England and the Angevin provinces of the centre.

As for the other aspect of the question, the influence of France on England, we must distinguish the Norman question from that of the Ile-de-France. Norman influence on England may be considered to have been exerted mainly in the Romanesque age; and before its close, the reflex influence of England upon Normandy had set in very strongly, so that in the Gothic age the mother province was rather acted upon than acting. England has almost as good a claim as France to consider Norman Gothic as part of her artistic assets, and where the similarities are great to consider them as originating in England and not in Normandy. Then, as to the Cistercian element, it had quite an important effect during the preparatory stage from c. 1150 to 1200, both on plan and elevation, but almost none in the even more fundamental elements of construction and decoration. This was natural, as it proceeded from the province of Burgundy, which was not then in the van of progress in these departments of architecture. In fact, in many ways the English Cistercian buildings take on a strong national and even local coloring.

Finally, the direct effect of secular artists from the Ile-de-France and its group is less evident than we should expect. After showing itself at Canterbury under William of Sens in 1174–78, it goes

almost at once into eclipse, after a glimmer at Chichester and Lin-
coln, leaving untouched the progress that led up to the evolution
of Early English. When it reappears, a half-century later, in West-
minster Abbey, it is strongly modified by the national art and here
again there is almost no artistic issue. At the same time, certain
French elements were, of course, admitted with changes; the flying
buttress; the grouped pier with circular in place of rectilinear core;
the imitation of plant life in decoration; the use of tracery. But
here also the principle was applied with more originality than in
any other country.

We have to consider, first, certain general English characteris-
tics, then the periods or styles under which the monuments can be
classified, and finally the schools whose local peculiarities somewhat
modified the general trend. In their general appearance a French
and an English cathedral stand at opposite poles, and one cannot
find on the Continent any group of buildings parallel to the English
in proportions and arrangement. As so many of the English peculiari-
ties are monastic, and as so many English cathedrals were of monastic
origin, a fact which one meets nowhere on the Continent, it seems
probable that this accounts for many characteristics, especially of
plan. The French scheme became compact, wide and lofty; the
English was long, narrow and low. The French reduced or elimi-
nated the transept; the English elongated it and usually doubled it.
In France everything was done to raise the vaulting height and
at the same time reduce the amount of material. In England the
vaulting was kept low and the material profuse. Many conse-
quences followed. The flying buttresses which form a forest of
ribs characterising a French exterior, are almost a negligible feature
in English work. The dominant vertical note of a French façade
becomes usually transformed into a dominant horizontality in Eng-
land, and this feeling extends to the whole structure. In nearly
every case the most beautiful view of a French church is from the
front or the rear, while that of the English is on the flanks. One
of the special gifts of English designers was the understanding of
articulated mass. Rodin has well said that Gothic architects were
past masters of light and shade. In French work this is more notice-
able in delicate, crystalline and subtle relationships and in the magic
fusing of design. In German work we find it in the anatomy of
detail. In England it lies in the hewing out of dramatic contrasts

and in broad brushwork; in the presentation of a series of picturesque and strong effects. In doing this one defect is evident. It is the lack of logic. The façades are not the logical expression of the outline of the building; the piers are not the logical counterpart of the vaulting shafts which originally suggested them. One must not forget two features in this comparison, even if they are matters of detail: I mean the capitals and mouldings. England created a specialty, the plain moulded capital, which strongly affected her interiors. She also used her uniquely heavy walling to create effective, strongly undercut and massive groups of mouldings. In both these fields she had no rivals.

Out of their low nave vaulting the English designers evolved one great advantage; the strong projection of their towers. The building of heavy towers may be said to have been an English mania in the Gothic era even more than in Norman days. The twin western towers could be easily made to rise much higher than in Europe above the roof line, which averaged 60 or 70% lower in England. But they were not made as great a feature as the tower over the main crossing. Enormous risks and sacrifices were made in a spirit of splendid optimism, in the building of these great central towers. The annals of English cathedrals are strewn thick with records of the fall of these towers or their spires and the destruction of the adjacent parts of the building. Yet they continued to build them. In France they were given up entirely, except where English influence is evident, as at Coutances. Not only was the risk too evident,—greater than in England on account of the far superior height of the vaulting,—but the necessity of having enormously heavy piers to support the tower at the crossing would have interrupted in the centre the sweep of the interior lines, a result to which French designers objected far more strongly than did the English. How one English architect of genius, Walsingham, evolved a triumph out of a disaster, is shown in the great octagonal lantern at Ely which rose at the centre, ruined by the fallen tower.

Thickness of walling was not eliminated and in this particular Romanesque habits were not overcome. The upper part of the nave of Salisbury, in which the Early English architect was free to use his own judgment, has a wall seven feet thick, as can be inferred from Fig. 478. Compare this with the contemporary thin walls of Amiens Figs. 65–67[1]. Presumably this heaviness was partly due to the evident

[1] These figures will be found in Volume III.

disinclination to develop the flying buttress. At all events it led
to some general results of fundamental importance, especially to
heavy moulded archivolts in the nave arcades, to frequent use of
heavy piers, and, consequently, to a very wide spacing of the piers,
lest they block up the interior. This led, in turn, to giving to the
wide nave arcades a much lower and less gracefully proportioned
arch than on the Continent. Had English builders been bold enough
to raise their main vaults higher, they might have avoided these
heavy arcades, but with their vaults kept so low, they were also forced
to similarly low arcades in the triforium, unless they fractioned its
bays up with undesirable minuteness. Not until the Perpendic-
ular period did England perfect in her large interiors the system
of framework which was so soon evolved in France to eliminate
the need for heavy walling.

Another national peculiarity was diversity instead of unity. In
France there was a consistent attempt to reach a type and to con-
form to it. The difference can best be gauged, perhaps, by study
of the forms of the pointed arch used in the two countries. In France
one hardly notices the differences in curve and span, and the arches
are single-centred: where there is a pronounced narrowing or stilt-
ing it is evidently due in most cases to abnormal circumstances
as in the addition of intermediate piers at Beauvais. But in Eng-
land there is every variety of width and centering, and the opposite
extremes are used at the same time, as in the narrow lancets of West-
minster choir and the wide arcades of the Hereford choir triforium,
whose sides are almost straight lines.

This diversity was abnormally accentuated by circumstances.
Gothic builders in England were usually given the problem of
adapting their design to part or whole of a previously existing Norman
structure. In France the old building was usually torn down en-
tirely; in England it was often kept partly concealed by a Gothic
dress, as at Chichester, Winchester and Gloucester, conditioning
plan and proportions. Even when Gothic dominated, there was
little conformity in sections built at different times. On the Con-
tinent there was far closer adherence to an original scheme. In
England this respect for unity seldom appears.

Other traits will be noted as they arise: such as the use of turned
marble shafts and capitals, the clusters of free-standing shafts,
the peculiar drooping foliage of the capitals, the deep undercutting

of mouldings and ornament, the development of the lancet arch and window, etc.

The grouping into periods stylistically different cannot, of course, be perfectly exact. Still it is convenient to make such groups as: (1) The preparatory and transitional, 1150–1175; (2) Early English, 1175–1270; (3) Decorated, 1270–1370, subdivided into geometrical and curvilinear; (4) Perpendicular (or Rectilinear), 1370–1600, with a distinct Tudor subdivision toward the close.

Each stage has its transitions, and there are always archaistic or retrogressive buildings, so that one selects a date for the beginning of each style when the new ideas had already been in operation for some time. The two last names are based on the style of tracery used: in Early English there was no tracery.

England appears never to have had the complex territorial subdivisions into schools that is so noticeable in Europe. Neither did the Gothic movement make such a revolution there in the matter of schools as on the Continent, obliterating them or decreasing their differences through the spread of common methods and ideas. The same three territorial styles that can be distinguished in England during the Norman age, seem to continue well into the Gothic period. They are the Western, the Southern and the Northern. Some of the characteristics of each are due to the quality of the stone of the region; others to influences such as the Cistercian. English archæologists themselves have only quite recently begun the study of such local characteristics, which increased rather than diminished toward the end of the Gothic age, in the days of the parish church and the manor-house. In this history it is unnecessary to do this in detail. We may, however, select one element, the shaft and pier, as showing the differences between the three main geographical schools; and also, the use of Purbeck marble, as illustrating still further the influence of materials on style. The pier of the Western school is heavy, built up in courses of freestone with groups of engaged shafts in a thick core which is at first rectangular and then concentric. The triplets of shafts often number eight, giving twenty-four shafts. In the Northern pier freestone is also used but the pier is much slenderer, there is no grouping in triplets and for the shafts are substituted engaged columns more strongly differentiated from the core. It is the most organic English form and most closely resembling the French type. There are usually four or eight columns and, in

some cases, they have pointed arrises (e.g. Beverley), which give
added force and delicacy. The Southern pier was the most original,
with its detached shafts, which are usually monoliths or bimonoliths.
The core was usually a cylinder but sometimes an octagon, and the
monoliths were four or eight and were usually banded to the core
with annulets. A special feature was the contrast of dark Purbeck
marble monoliths against the light freestone core. Gradually this
daring and picturesque Southern pier superseded the Western and
Northern varieties.

In one way English Gothic is remarkably difficult of satisfactory
treatment. Hardly a building of importance except Salisbury was
built in one style. If one wishes to follow a strictly chronological
order it would be impossible to describe the whole of a building at
the same time. Its *disjecta membra* must needs be scattered—choir
here, presbytery there, nave and façade in a third or fourth page.
As a choice of evils it has seemed best to retain the unity of the build-
ings at the risk of hurting the exact sequence of styles.

Origins.—In assigning to these elements their share in building
up the Early English style, we find certain points quite clear. First,
it was to the Cistercians that the introduction of the pointed arch
was due, toward 1145, as illustrated at Fountains and Kirkstall
(Figs. 467, 492–4). They imposed their peculiar square-ending apse
in place of the semi-circular and radiating choir. They succeeded
in England more than in any other country in permanently affect-
ing in this way the national church ground-plan. Their dislike
of the flying buttress and their development of the buttress pier
also helped to prevent any development of lofty vaulting and the
double flying buttress corresponding to French work. Then, while
the ribbed vaulting at Durham and Peterborough, as early as c. 1120
and 1150, prevents ascribing to the Cistercians the introduction of the
ribbed vaulting system into England, it is certain that their influence
led more and more to the adoption of ribbed vaults in place of the
normal wooden roofing in the period between 1160 and 1190. Espe-
cially after they passed at St. Cross and Roche from vaulting merely
the aisles to vaulting the naves, only some twenty years after this
had been begun in Central France. A glance at such Cistercian
exteriors as Kirkstall (vol. II, p. 387) and St. Cross will show the
use of several other forms which became dominantly English; for
instance, the central tower and the heavy corner buttress-turrets,

which were for strengthening the angles against the vaulting thrust, and became so important a decorative feature of Early English.

This proto-Gothic group was touched upon in vol. 11, pp. 385–6 and Fig. 332, where a view is given of the ribbed cross-vaults of Durham cathedral, which are of quasi early Gothic form (c. 1140). Similar heavy vaulting was used soon after in the aisles of Peterborough and Gloucester cathedrals. But with these there went no change from the Norman Romanesque style; the arches were still round even in the nave. The naves of Malmesbury (c. 1130), Fountains (1147),

467—Kirkstall Abbey, nave, looking east.
(From photo.)

Buildwas (c. 1140), Kirkstall and other monastic churches built before c. 1160, were designed for wooden roofs but their arcades were all pointed and their aisles covered with ribbed vaulting. This was illustrated in the case of Kirkstall on p. 387 of vol. 11 but better still in the interior view given in Fig. 467, where the plain heavy design is characteristically Cistercian. An advance appears at Roche Abbey, also Cistercian, a type quite Burgundian, where a triforium is inserted and the transepts are vaulted. In the west at Worcester the cathedral seems to have been

planned for a complete vaulting system soon after 1160, under Cistercian influence, and the ruins of the great Cluniac abbey church of Much Wenlock illustrate this further monastic step. There is as yet nothing Gothic in the style, however much of Gothic structural principle has been adopted. Further delicacy and increased memberment appear in the choir of Ripon cathedral, where Early English lancet forms are introduced. The Burgundian type of heavy clustered pier is used with greater slenderness. The triforium arcades are increased from two to four. At Whitby Abbey (Fig. 468) we may take leave of this preliminary Cistercian style as it merges into Early English without completely ridding itself of its inherent solidity: this view will show how the nave was planned for vaulting

and how rich was the entire memberment. But this is a phase subsequent to Lincoln choir. The details of the vaulting scheme in the early westernmost bays at Worcester are also of a delicacy approaching early French work.

Early English.—It is customary to cite St. Hugh's choir at Lincoln, begun in 1192, as the first embodiment of Early English, but this is to ignore both the independent Western school and the immediate influence of Canterbury as well as of the Cistercians, as shown at Wells, Winchester, Worcester, Chichester, Byland, Ripon, Roche, Dore, Selby, Wenlock— all previous to 1200.

468—Whitby Abbey, nave, looking east. (From photo.)

Wells cathedral must be studied at the very beginning, as it embodies even more of the earliest work of the Western school than Worces-

469—Wells cathedral, from the east. (From photo.)

ter. Here also, from force of circumstances, the later must be considered together with the primitive work. The general view from the east in Fig. 469 surpasses in charm even the view of Lichfield, but the parts we here see belong nearly all to the Decorated period: Lady Chapel, choir and splendid central tower. Only the transept belongs to the transitional stage, with its simple two-light windows. For the details of the

earliest work on the exterior, that of the XII century, the north
porch is the best example. It is superior to the corresponding later
porch at Salisbury. Passing to the west side, we find, in Fig. 470,
one of the most notable of early English façades. It is more suc-
cessful than Salisbury's. This is due, perhaps, to the accentuation
of the vertical lines by the splendid buttresses and the dignity of the
two towers, which project beyond the aisles, as in Normandy. There
is also more unity of design and less multiplication of vertical stages.
The profusion of sculpture is not monotonous, as in other cases. It
is the most artistic instance of the English method of using single
large figures in niches, in contrast with the more picturesque and
artistic French method
of relief sculptures with
figures largely concen-
trated at the portals.
The insignificance of the
portals in England made
the French scheme im-
possible.

The Cathedral of
Wells is in its nave,
shown in Fig. 471, the
finest instance of the
adaptation to cathedral
needs of the Cistercian
type. There has been
much confusion as to the

470—West front of Wells cathedral. (From photo.)

dates of the various parts of the choir, but it seems certain that
while the façade is Early English (1220–1239) and the bulk of the
choir of the XIII and XIV centuries, the nave, transept and west
bays of choir represent the period 1170–1190. It is similar in its
bay arrangement to the Much Wenlock type, though in a way less
advanced, because the vaulting shafts rest on corbels that spring
from the junction of the hood mouldings of the triforium, instead
of from that of the main arcade or from its capital. Yet, we shall
find it as late as c. 1240 at Salisbury. This is a concession to the
native love of flat surfaces, horizontal lines and heavily moulded
piers. This "Western" pier, with its engaged shafts in groups of
three, is so articulated to the wall it supports as to involve an un-

paralleled heavy grouping of archivolts under the nave arcades, be-
cause none of these shafts are made to correspond with the main
vaulting shafts or even with the hood mouldings! The peculiar
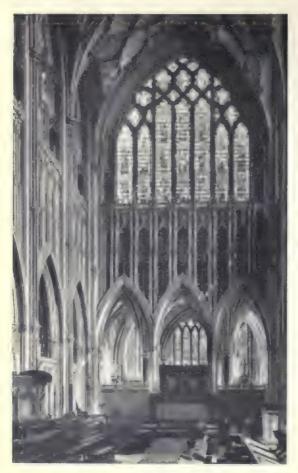
471—Nave of Wells cathedral. (From photo.)

characteristic of an uninterrupted triforium gallery was not inherited
from Norman architecture nor was it transmitted to Early English.
Even in the Western school itself it was not adopted at this time, as we

shall see in the triforium of Worcester. Another peculiarity is that the openings of this arcade are so small as to relieve only partly the wall-like effect. Here also it is unique, of an effect midway between the walled type of Worcester and Beverley and the broad arcades of Ely and Lincoln.

The choir, retro-choir, Lady Chapel, and Chapterhouse are among the most perfect works of the Decorated period, and will be described here, out of their historic sequence, because, as has already been explained, it has seemed best not to fraction up the description of a building. The Chapterhouse will be described on another page. Fig. 472 shows the choir with the three very pointed arcades that separate it from the *very low* retro-choir, with the processional path looking into the Lady Chapel dominated by the vaulting. Very original is the way in which the necessarily squat proportions of the great East window, broken by the roof of the retro-choir, are overcome by the vertical divisions of the tabernacles, which line with the mullions and give great lightness to the composition. The sharpness of the mouldings and the play of light and shade are characteristics of this choir, where the Fourteenth century architect retained the last three piers of the Twelfth century choir. The insidious approaches of the Perpendicular are evident. The least successful part is the vaulting with its

472—Choir of Wells cathedral. (From photo.)

awkward panels. These two views give typical examples of three, five and seven-light Decorated windows.

In the diminishing height of the retro-choir the Early English type of Salisbury is followed, but its fundamental defects, though charmingly concealed, were too obvious to give it popularity.

The choir of Canterbury cathedral is the earliest example of the importation of the pure Ile-de-France style of transitional Gothic. After a fire which destroyed the choir of the Norman church, a com-petition of architects was held which result-ed in the selection, in 1174, of William of Sens, a Frenchman, to take charge of the re-construction. The view given in Fig. 473 shows how absolutely the French design was carried out. The sex-partite vaulting is here found for the first, and almost the only time. The vaulting shafts, resting on sin-gle or triple shafts of Purbeck marble and alternately heavy and light, spring from the main capitals; and the alternating cylindrical

473—Canterbury cathedral choir.   (From photo.)

and octagonal piers, together with their foliated capitals and the arch mouldings, are the reproduction of French models, more specifi-cally of the cathedral of William's native town, Sens. The flying buttress appears for the first time, and in more slender form than later English imitations.

The plan shows how the semi-circular ending of the choir of William of Sens was (Fig. 528) changed by his successor, William the English-man, to allow of a new extended termination in the form of a chapel—Trinity Chapel—to receive the shrine of Thomas à Becket, murdered

a few years before on this spot. Trinity Chapel is interesting for its use of coupled shafts, as at Sens, and shows, in all but a few details, the same French style
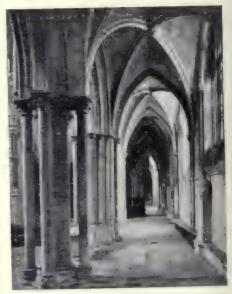
474—Trinity Chapel in Canterbury cathedral. (From Bell.)

as the choir. The illustration in Fig. 474 shows the small chapel called " Becket's Crown." This chapel and the choir are unique in England in the closeness of their approach to French work. Echoes of this appear at Chichester and Lincoln in capitals, sexpartite vault-

ings, etc. The round arch used in both cases for the main arcade had long before this time been abandoned in Northern France. Anglicisms also appear in certain details, such as the zig-zag ornament and the round abacus. This is especially so in the crypt, where the Englishman had a free hand.

At Chichester the fire of 1187 led to a remodelling and vaulting in a manner styled the same as Wells and Worcester, but more organic and Continental in setting the spring of the vaults so high, on a level with the clearstory arcade. The vaulting itself is comparable, let us say, with that of the nave of St. Denis. In regard to the veneer added after 1187 to the walling of the nave, it includes the outer archivolts of nave and
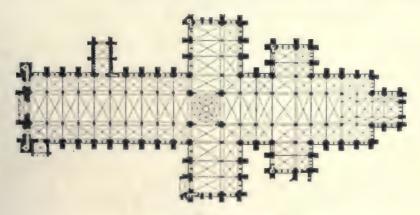
475—The north choir aisle, looking west, Chichester. (From Bell.)

gallery arcades, the banded Early English shaft in the recess and the moulding it supports. This interior, curiously enough, gives a greater sense of loftiness than either Salisbury or Lincoln.

In the remodelling of the retro-choir there was greater independence, and we find here some important developments, especially an extreme form of the Southern pier, in which the distance between central and auxiliary shafts is greater than in any other English instance, and much greater than in France. In Fig. 475 this is clearly shown, and we see that the other form of grouped pier is also used and quadripartite vaulting of the French type with stilting on the outer side to abut the main vaulting. In Canterbury choir the subsidiary shafts are set much closer to the core, after the French fashion. An intermediate type is used at Ely, which gives an appearance of greater strength and unity. The Chichester type was rather a tour-de-force inspired by the newly-discovered qualities of the Purbeck marble shafts.

The same relation to Canterbury can be seen in the massive yet exquisite presbytery of Rochester cathedral, with its short transept and sexpartite vaults.

The cathedral of Salisbury is universally selected as the best embodiment of Early English design, not so much because of the beauty

476—Plan of Salisbury cathedral. (From Dehio.)

of its various parts but because of its unity. The greatest difficulty, as we have seen, is to find this unity in any period of English medieval architecture. So, though it is later than the earliest part of Lincoln, it will be described first. The designer was unhampered by previous Norman or transitional structures. He was therefore free in his plan, and here we find something quite unknown on the Continent, a plan of what is called the "Old Sarum" type, with its second transept
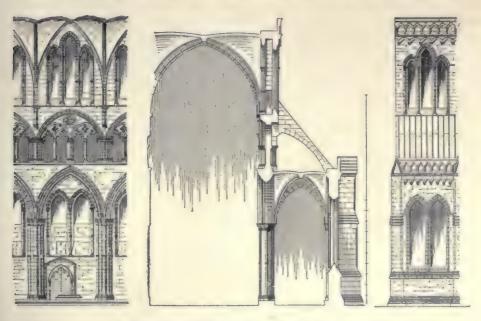
and processional path, required by the liturgical peculiarities of the
English Church.   Into this it will not be necessary to enter: nor to
discuss the differences between monastic and non-monastic plans,
new and old systems, or the unique monastic character of so many
English cathedrals.   The liturgical requirements certainly had a
fundamental effect on English architectural development and we are
concerned only with its æsthetic results.   The main features, as shown
in Fig. 476, are: the double transept, of unequal dimensions, and a

477—Salisbury cathedral, from northeast.   (From Bond.)

simple narrow square-ending choir and presbytery with a rectangular
Lady Chapel.   The absence of double aisles and of nave chapels
results in a narrow, simple and elongated plan, contrasting markedly
with the normal contemporary plan in France, and giving a peculiar
effect of simple symmetry.   The architect was free to give any height
he dared to his nave.   Yet the crown of its vault is only 82 feet with a
width of 39 feet.   This lack of elevation harmonizes well with the plan,
and gives to the design, as we see it in Fig. 477, the restful simplicity
so characteristic of the best Early and Middle English work.   This

view, from the north-east shows the pyramidal effect produced by the low Lady Chapel and presbytery and the progressive rise to the central tower. There is an added picturesqueness in the extreme projection of the main transept, and while the absence of twin western towers takes away from the interest of the façade, it adds to the effect of unity as we look at the church from this angle. Here, too, we can see just how far the screen idea is developed in the façade, with

478—Salisbury cathedral: sections and bay. (From Dehio.)

its corner turrets not much larger in proportion than those of the transept and choir fronts.

The system and proportions are given in Fig. 478 in all their simplicity and are typical of the width, of the grouping of lancets and the spare use of buttresses. But this hardly does justice to the interior. The view across the aisle in Fig. 479 is more effective than any in the central part, where the excessive width of nave and arcades is disappointing. The contrast to Lincoln is extreme in all decorative features. Here there is no sculpture, only moulded capitals, plain surfaces and mouldings. The constructive articulation is poor; the spring of the vaulting shafts being in the spandrels of the triforium instead of in those of the main arcade, but the form and structure of the vaulting are good, with stilting of the longitudinal ribs.

The Lady Chapels and similar constructions at or near the east ends have in England more independent interest than is usual. In a few cases, such as Peterborough and Ely, the chapels are detached structures set on the north side of the choir or even, like closed porches, at the west end; otherwise they are a prolongation of the choir and more or less part of the main structure, except in cases like Gloucester, where the separation is marked. The east end of Salisbury is a good instance of a Lady Chapel which in plan seems a part of the general scheme, projecting only two bays beyond its side chapels; but in elevation the distinction in height is marked; the entire four bays with the chapels being kept very low. This is the popular form given to Lady Chapels in the early XIII century. It appears at Hereford (Fig. 514): its extreme lowness is reached at Chichester. The interior of the Lady Chapel (Fig. 480), in its elegant and almost metallic slimness, embodies the best side of the somewhat hard and dry style of the whole cathedral. Of the two main types of east ends, that with the narrow and low Lady Chapel; and that where the nave and aisles reach the east end in their full height and width, the lat-

479—Salisbury: view across aisle. (From photo.)

ter is the more beautiful, the former the more picturesque. The plan (Fig. 476) and exterior (Fig. 477) of Salisbury shows the earliest perfected version of the first type, while its consummate flower is at Wells (Fig. 469). It never developed outside of the Southern and Western schools. The other scheme has beautiful developed renderings at Ely, Lincoln and York, and can be studied in Figs. 481, 498 and 516.

Lincoln is a more varied, original and artistic exponent of the early stages than Salisbury. Not only does it commence sooner and end later, but it is of a higher artistic order, in design, decoration and construction. The finest view is from the south-west (Fig. 481), showing how the group of three towers holds the screen façade in check. They did so originally even more effectually, because they were crowned by high wooden spires. This view shows also the unusual projection of the main transept. The façade is given in Fig. 482. The nucleus is a legacy from the Norman structure and was described in Vol. II, p. 375. The Early English additions raised and widened it and turned the three-gabled scheme into a screen masking low chapels, a peculiar composition which became quite popular. Little can be said in its favor even when it had the stylistic unity which here is wanting.

480—Salisbury cathedral: Lady Chapel. (From photo.)

Returning to the ground-plan, the reconstruction began at the east end; not the present structure, but a polygonal choir with radiating chapels just beyond the east transept. After the new building had been carried westward and completed, the present east end was begun, in order to suit the liturgical requirements which were then causing the remodelling of English churches. This new presbytery involved the replacing of the incipient Early English work by a structure in Early Decorated.

One of the most original creations of the English Gothic designers

is what is called the East Front. It does not at first assume much importance. At Salisbury, for example, where, as we have seen, the east end is supplemented by a low Lady Chapel, this front is less of a feature than the transept ends, nor is it any more imposing in such cases as Southwell where the choir has no aisles, though its height is not diminished. But, at Fountains, with its famous terminal transept, elsewhere described, and especially at Lincoln, a truly artistic composition was conceived. In Fig. 481 the artist will see

481—East end of Lincoln cathedral. (From Bond.)

in the Lincoln east front a practically perfect design, with its splendid spread of traceried windows. Compared with it the east end of Ely is inferior, even allowing for the remodelling of the wings, because it retains three superposed rows of lancets, and so misses unity of effect. The Lincoln windows are French in design. The great central window is the most beautiful as well as the earliest in England (1256–1288), as its predecessors in bar tracery, the Westminster windows, are not on this scale nor with this detail. In it a model for geometrical Decorative tracery is set.

In this connection it is interesting to note that the Early English style until its closing stage uses no tracery. Its individual windows are small, and usually arranged in groups of two or three. At Salisbury and Lincoln, for example, in groups of three in the clearstory, and of two in the aisles. Sometimes, as in the east ends and transepts, the groups are larger, as in the Five Sisters at York. Even after the middle of the XIII century, when the various Chapterhouses of Westminster choir, Lincoln, Ely, &c., had popularised the use of the French system of window tracery, there were parts of the north and west, particularly where Cistercian influence was strong, where the

plain lancets were never superseded by the broader traceried windows. The geometrical phase of the Decorated style naturally grew up in the regions that were affected by the use of tracery and sculpture.   In
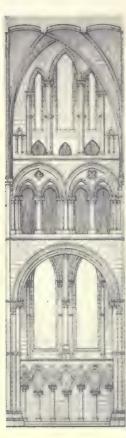
482—Lincoln cathedral: west façade.   (From photo.)

the magnificent presbytery at Ely the Early English style had already taken on, before 1250, many of the essentials of Decorated.

The main stylistic divisions at Lincoln, as we see it, are: (1) St. Hugh's choir and east transept, 1192–1205; (2) nave and west front, c. 1205–1250; (3) presbytery or Angel choir, 1256–1280; (4)

upper portions of towers, XIV century. In the interior we will begin with St. Hugh's choir, commonly regarded as the cornerstone of Early English. A bay is given in Fig. 483. The originality is clear, notwithstanding the influence of Canterbury in the main arcade. The banded grouped pier has replaced the plain pier; the elongated lan-

483—Bay of St. Hugh's choir, Lincoln. (From Bond.)

484—Interior of Lincoln cathedral, across aisle. (From photo.)

cet has replaced the broader window; a curious irregularly-celled vault, never to be repeated, is invented (see Fig. 521) and equally idiosynchratic are the double arcades of the gallery and the clearstory. Passing into the nave, the effect is disappointing, owing to the width of vaulting and of arch span. Much more effective is the view across the aisle in Fig. 484, which illustrates the talent of English designers

in securing striking effects.
The grouping of the arch
mouldings has already attained
the strong effects of light and
shade by undercutting which
becomes so characteristic. The
main transepts are intermedi-
ate between the nave and St.
Hugh's choir and, with their
length of 224 feet and their
great rose-windows, are the
finest of the one-aisled English
transepts. A rare French trait
is the sexpartite vaulting
which is one of the inno-
vations borrowed from
Canterbury.

485—Lincoln cathedral: Bishop's Eye. (From Bond.)

The rose-window in
the South transept in
Fig. 485 is interesting not
only because such win-
dows are very rare in
England and because it
is a charming piece of
curvilinear tracery, but
because the design itself
indicates the absence of
an English tradition in
rose-window design. If
one studies the French
rose and wheel windows
in their evolution during
three centuries of active
service in façade design,
noting the improvement
in the management of
strains and in the bulk
and disposition of trac-
ery, it is evident that

486—Nave of Angel choir, Lincoln cathedral. (From photo.)

they form an independent class, treated specifically. In England
there are sporadic traces of the duplication of early French models.
The ruined façade of Byland Abbey church shows that even the
Cistercians before 1177 had introduced the rose-window as the cen-
tral feature of the West front. The tracery has entirely disappeared;
and, besides, it is a unicum. Where circular windows appear in
Early English, they are plain
wheels in gables as at Peter-
borough and in Beverley tran-
sept. It is in Lincoln itself
that the largest predecessor of
the rose we are discussing oc-
curs, the window in the North
transept called the "Dean's
Eye," in Early English style
where the dependence on the
Chartres type is evident. Re-
turning now to the "Bishop's
Eye," evidently put in to bal-
ance the "Dean's Eye" at the
opposite end of the transept,
its scheme is probably de-
rived, not from a previous
lineage of circular windows,
but from the heads of con-
temporary curvilinear pointed
windows, with their single
mullions and double light,
partly reversed: a patent proof
of the rare use of tracery
especially designed for circular
frames.

487—Triforium gallery of Angel choir, Lincoln
cathedral. (From Viollet-le-Duc.)
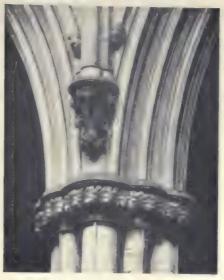
Passing through St. Hugh's choir we reach the famous presbytery
or Angel's choir, the crowning glory of Lincoln. Fig. 486 shows how
logical an evolution had been taking place in about a half-century
since Bishop Hugh. The difference is particularly evident in the
rich and symmetrical triforium gallery and double clearstory. The
style is more Decorated than Early English. The detail in Fig. 487
shows the arrangement of the wooden-roofed triforium and the serv-

ice gallery in the clearstory, where we find the same novelty of tracery that we see in the big east window; here it is repeated, with less delicacy, on the exterior. The vaulting is a form of early fan-vaulting, which we see developed here at Lincoln, replacing both the sexpartite and the irregular form of St. Hugh's choir. A striking characteristic of the whole cathedral is the beauty of its sculpture, in which it set the pace for more than this part of England. It was gradual. In St. Hugh's choir it is only the capitals; in the nave it shows also in the sharply articulated bracket-corbels (Fig. 488). The gate of the north choir aisle illustrates the curious attempt, so common in

488—Detail of pier and arcade, Lincoln cathedral. (From photo.)

England, to give a broad foliated design to the main archivolt without abandoning the even torus-like outline. The surface is deeply undercut and naturalism is subordinated. To be noted is the Norman effect of the decoration between the dark Purbeck shafts in Fig. 489.

The decorative evolution in the Angel choir is illustrated in its corbels, as compared with those of the nave (see Fig. 486). In both the crockets project equally as far, but in the earlier corbels they are more effective. The profuseness of crockets on the hood-mouldings and between the shafts is another national trait. But there is more than a trace of French style in the treatment of

489—Doorway of north choir, Lincoln. (From photo.)

490—Detail of portal of Angel choir of Lincoln. (From Michel.)

the portal of the Angel choir, of which a beautiful detail is given in
Fig. 490. The statues in their niches are French even in their alert
charm, as are those that peer from the foliage of the outer archivolt.
Strictly English are the middle foliated archivolt, with its basket-

work scheme, the circular abaci, and the stiff sharp crockets of
the capitals, though they retain the heavy French stems embodied
in the basket instead of adopting the Western English scheme
of thin appliqué stems.   The entire scheme is vivid and pictur-
esque.   We have dwelt on it in some detail, because, while it is
very individual, it set the decorative pace at the close of the Early
English style.

The comparison of the Peterborough façade with that of Lincoln
is inevitable.   The body of the church has been described in Vol. II,
pp. 378–9, where the
façade was referred to.
Here there was no Nor-
man residuum as at
Lincoln.   The work is
all frankly Early Eng-
lish and a work of
unique design.   The
screen effect is well-
nigh obliterated by the
three gigantic arcades,
81 feet high, which
form a continuous
porch some 170 feet
wide.   The way this
stretch of masonry is
connected with the
rear façade is extra-
ordinarily bold and
strong.   These arches,
with the corner towers,

491—Peterborough, west front.   (From photo.)

form in fact a second façade.   While they reduced the area devoted
to statuary very considerably, they did not eliminate it, as appears in
Fig. 491, and we must imagine many of the other arcades and niches
as filled with statuary.   The time of building (1200–1214) makes it
the first Early English façade of any importance that has been pre-
served.   Of course the spires are later, as well as the tracery in the
windows, the enlargement of the main window and the small cen-
tral portico.   The reversal of the usual relation in making the central
arcade narrower than those on either side is due to the necessity of

counteracting the thrust of the vaulting of the nave by the two central piers. The so-called "west transept" or widening of the nave in the last bay in front of the façade gave this greater width to the lateral arcades, and the towers project beyond this "transept" line. The slight asymmetry in the aligning of the pinnacles between the gables and in the base of the central gable is the architect's means for giving equal height to all the gables.
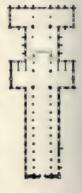
492—Fountains Abbey: Chapel of the Nine Altars. (From Lefroy.)

The view in Fig. 492 of the so-called Chapel of the Nine Altars at Fountains Abbey (whose early nave has already been described, p. 10) shows an almost unique form of the Eastern or minor transept. It was placed not across the centre of the choir but at the extreme east end, making a most unusual and effective termination, as can be seen in the plan (Fig. 493), where the original east end appears in outline just above the usual two pair of Cistercian side chapels in the west transept. Another interesting Cistercian termination not used in cathedral architecture but adopted quite extensively in German Cistercian churches is shown at Dore Abbey, where the square east end is made unusually important internally by having not merely an ambulatory but a double aisle. Returning to Fountains, our interior view of the ruin shows what we believe to be the most daringly slender shaft in England; a simple octagon, fifty feet high. The style is Early English (1247), and the use of the large traceried window above the triplet of lancets is unusual. A general view of this part of the ruins is given in Fig. 494. Fountains is near Ripon and York, and so represents the northern school.

493—Fountains Abbey: ground-plan. (From Bond.)

Durham has been dealt with in Volume II, as it is a Norman crea-

tion,[1] and the Chapel of the Nine Altars was then referred to (p. 384) as a substitution for the Norman apsidal termination. It is a square transeptal, east end in pure Early English and so similar in boldness of structure, vaulting and plan to its contemporary at Fountains that the common origin is evident. Both are in the same region and both belong to the monastic art of Yorkshire.

The use of tracery on the side of the clearstory gallery facing the nave was not common, as the desire for unobstructed light led the

494—Fountains Abbey. (From photo.)

architects to leave the arcades free, but in some cases this rule was not followed. In the east transept of Durham there is a fine simple instance of double tracery in Early English style and here also the variation of design from that of the windows is well illustrated. We have already seen at Lincoln the other form, in which there is no variation in the design.

[1] Through an inadvertence that Mr. Sturgis would himself have undoubtedly corrected, the Chapel of the Nine Altars is confused with the west transept. Had Mr. Sturgis also considered the liturgical requirements of the monastic churches of that time, he would have seen that the "Chapel of the Nine Altars" was planned not at all as a transept but in order to carry out the scheme of the processional path.

Southwell in the Midlands was cited in Vol. II for its Norman nave. Its choir is Early English of a severe type of the Northern school, with piers of the same kind as those of the Yorkshire school (especially the Cistercian churches and Beverley), with eight almost uniform grouped shafts. It also resembles Beverley in its East end with Lady Chapel of the same height as the nave (Fig. 495). Another interesting feature of this design is the unification of the triforium and clearstory. This had already been done at Christ Church, Dublin, and in the choir of Pershore. It would seem as if England had preceded France in thus producing a type of two-storied interior. Even in the transitional period another solution had been attempted at Glastonbury (c. 1180), where a false main arcade springing from the pier arches enclosed the triforium arcade and so added to the vertical effect: but this makeshift scheme dwarfed the real arcade below and found little favor. The Pershore and Southwell scheme was a more logical attempt to obtain good vertical proportions with the low English vaulting, and was also a compromise in the sense that the three-storied design is preserved back of the great pair of lancets on the clearstory line. The scheme of St. Urbain at Troyes (Vol. III, Fig. 121) shows the French mode of unifying the two upper sections, a few years later, in far more advanced style.

495 —Bay of Southwell cathedral. (From Bell.)

The interior of Worcester cathedral in Fig. 496 is taken from the west end of the nave, though it just misses giving the two westernmost bays, which are the earliest part and perhaps the most interesting remaining fragment of genuine transition to Early English, not later than 1160–1170. The bulk of the nave, though much later work, and not vaulted until about 1377, has the characteristic "western" type of clustered pier, with four groups of three shafts each engaged in the core. The sheer bulk, though somewhat concealed by these mouldings, corresponds to the Norman circular pier. It was after the fall of the towers in 1222 that a general reconstruction began at the choir, which is given in Fig. 497, as a splendid instance of how quickly the influence of Lincoln affected the western school
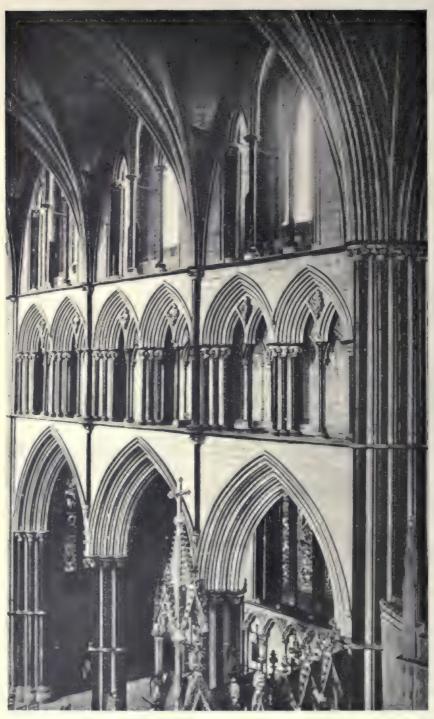
and modified its heaviness.   Here we can study the polychromatic contrast that was becoming so common through the use of the black Purbeck shafts.   But this Lincoln influence did not appear in the triforium, which can best be compared with those of Beverley and Exeter: a blind gallery with a double arcade to relieve the blank wall. It gives a different effect from the usual open blind-story type, with its contrasting black strip between arcade and clearstory, and from the rarer open pent-roof type of Ely and Lincoln, with windows in

496—Worcester cathedral: nave from west end.   (From photo.)

the outer wall.   We found still another type at Wells.   Returning to Fig. 471, we see how at the east end the entire wall is filled with two superposed sets of five lancet windows, so closely grouped that they form an excellent transition (like the corresponding group in the York transept) to the single large mullioned window which occupied the corresponding position a few years later at Lincoln.

Although not one of the large cathedrals, Beverley Minster in Yorkshire is one of the most satisfactory to an architectural student in search of unity of design.   One must, it is true, imagine the central tower, whose base is all we see; otherwise the proportions and details,

497—Worcester cathedral choir: east end. (From photo.)

as seen in the view from the South in Fig. 498, are extraordinarily good. The plan is rich for a small church: it not only has the double transept, but the main transept has the rare side-aisles and four enormous central piers, which show how imposing the central tower was to have been.

The choir was built first (c. 1210–1230), and its exterior is one of the earliest expressions of pure Early English in the north; like the Southwell choir it belongs to the intermediate type with a Lady Chapel of equal height with the nave. Cistercian influence (e.g. Dore) is perhaps responsible for the interesting peculiarity that there is no retro-choir beyond the second transept, from which the Lady

498—Beverley, from the southeast. (From photo.)

Chapel projects directly. At the West end we find what is perhaps the most symmetrical and successful of English façades. Although carried out over a century and a half after the choir (end XIV century) it seems as if the original scheme had been adhered to, for the arrangement of twin towers is evidently on Norman-French lines. It is the best of the few English examples of this common European type. If we compare these Beverley towers with the Lincoln façade where they are hidden behind the enormous screen or even with the York façade where they are blended, the superior effectiveness and strength of the Beverley design is evident, because of the independence of the towers and the unbroken vertical sweep of the outlines. The splendid use made here and at Southwell (e. g. the choir) of the thin but strongly projecting buttress is a feature.

499—Triforium and clearstory at transept of Bever-
ley cathedral. (From Bell.)

An effective view of the most original part of the interior is that of the triforium and clearstory at the transept, in Fig. 499. What must here be noticed is the substitution for the usual large triforium of a blank wall faced with a blind arcade, in front of which is a second trilobated arcade with Purbeck shafts which bisect, with rather disquieting effect, the centres of the rear arcade. Perhaps the model for this design is the double arcade of St. Hugh in the East transept at Lincoln. The elaborate featuring of the corner pier is original and so peculiar as to suggest a later facing with a view to strengthening the support of the central tower. Great lightness was secured in the clearstory by the elimination of walling in front of the passage and the use of stilted lancets. This entire composition is considered one of the finest pieces of Thirteenth century work in England. The nave (except for one bay next the crossing) was not built until a century had elapsed (c. 1320–49), yet the view in Fig. 500 will show how closely the architect of the
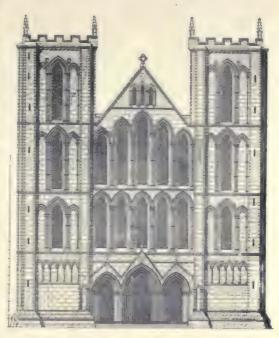
500—Beverley cathedral nave. (From photo.)

late Decorated period carried out the scheme of the original architect. His main change can be seen on the exterior, in the wider traceried windows. This makes the probability even greater that an early design was also followed, as we have suggested, in the façade.

Ripon, in Yorkshire, occurs naturally in connection with the Scotch buildings, for which it served as a model, because its charming choir, dating from c. 1170, with acutely pointed arches and otherwise an advanced example of transition toward Early English, has a wooden roof, though its bay design seems to anticipate Lincoln choir of 1190.

Its west front, though cold and monotonous, is historically interesting as the only remaining design with flanking towers of the Early English period. The groups of lancets that had been developed at the square east ends and transepts were here transferred to the west end, and grouped with a predominance of openings that would hardly have been adopted had the nave been vaulted. It projected, screenlike, beyond the nave to a width of 105 feet (Fig. 501).
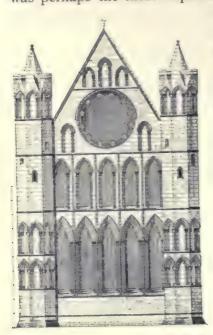
It is curious how little need be said of Ireland, and

501—Ripon cathedral, west front. (From Dehio.)

even of Scotland and Wales. Of course there are buildings that might be mentioned were one to draw up a catalogue, but nothing original or different was developed, nor much that was remarkable in any way. An exception in Ireland was Christ's Church cathedral at Dublin, but it was built by English masons brought over with the expedition of Henry II and is of the transitional and Early English type of the west of England, drastically restored by Mr. Street, leaving us to admire mainly the general design, especially the union of triforium and clearstory. As for Wales, its buildings are but part of the product of the western school, in its more puritanical aspect,

with a large infusion of the plain features favored by the Cistercian order to which a number of Welsh buildings are due. As was natural in a poor region, they were on a small scale. Curiously enough, this Welsh phase of Cistercian architecture had considerable effect in Ireland. This is illustrated in the case of the Welsh Abbey of Cwm Hir, whose founder, Robert Fitz Stephen, was the leader of the first invasion of Ireland in 1170. At that time Cwm Hir, now destroyed, was perhaps the most important Cistercian establishment in Great Britain. Among remaining examples of Welsh Cistercian or Augustinian art are Llandaff (restored), Llanthony (ruined), Valle Crucis and Croxden, all in Early English. Perhaps the most interesting feature which is illustrated in this group is variations of a simple sort in types of façade different from the English screen types and resolutely adhering to the lancet type of window without tracery. The majority are without flanking towers, like transept ends; but plain towers appear at Llandaff and Llanthony, which are not Cistercian. Plainest of all is the façade of Croxden (c. 1210), with nothing besides the single portal than a triplet of preternaturally high lancets which entirely occupy

502—Elgin: west front.   (From Dehio.)

the western gabled front. This towerless Cistercian type developed in the course of a half century into charming triplets of traceried windows in non-Cistercian fields, such as we admire first at Romsey, Binham and Howden and then at Hull in England. It was a strictly logical design, originating in Cistercian good sense and thrift and developed into an artistic scheme by other artists.

Gothic buildings in Scotland were as clearly a derivative of the northern art of Yorkshire as Welsh buildings were of the western school. But in Scotland the monasteries were even more dominant than in Yorkshire, and this meant that the simpler forms of the northern school were adopted, under Cistercian guidance. There are transitional elements in the splendid ruined abbeys of Kelso and

Jedburgh before the close of the XII century, but every form appears later here than in England. At Dryburgh (c. 1230) there are striking resemblances to English Rievaulx, and Dundrennan copies English Roche. Vaulting was slower to be adopted, and the otherwise advanced Early English nave of Dunblane was in 1250 still covered with
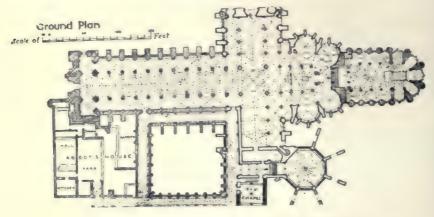
503—Westminster Abbey: interior of choir. (From photo.)

a wooden roof; its west front has the unusual feature of a triplet of traceried lancets. As a rule, however, the Scotch never evolved beyond the untraceried lancet stage of Early English, continuing to use it, as at Elgin and Glasgow cathedrals, well into the XIV century. A comparison of the east end of Elgin in Fig. 502 with the west front of Ripon will make it clear how the Cistercian models of Yorkshire were copied.

In the South of Scotland the choir of Glasgow is preeminent with its big square ending and processional path similar to those at the Cistercian Dore and Ripon. There is a monotony in the endless repetition of lancets. The lighter and more delicate manner of York-shire Cistercian was not imitated: the mouldings remained heavy and the piers stout and low. By not adopting the type of the clustered shaft with slender monoliths this heaviness was accentuated.

We will now return to England to study the passage from Early English to Decorated. Westminster Abbey, beautiful as it is, re-mained in its scheme a "sport." It set up for all England to see a sample of French plan unsuited to English ritual, and of French

504—Plan of Westminster Abbey. (From Bell.)

proportions and memberment alien to English taste. Figures 503 and 504 will show these peculiarities. The choir, first to be built, has the five radiating chapels and the ambulatory so common in France, but abandoned by the English Gothic school. It is linked to the transept without the usual English intervening length of nave. In the section the nave has a height of 101 feet, much greater than that of any other English nave, though very inferior to its principal French contemporaries. Salisbury's height was 84 feet and Lincoln's 80 feet. This height carried with it the double flying buttress, avoided by English designers. In combination with this, the close spacing of the piers, also un-English, allowed the designer to make his clearstory and triforium gallery according to French proportions of slenderness, the latter with acutely pointed hood-arches. The contrast of the two-light traceried windows with contemporary

English custom is striking (Fig. 505). It is so simple and logical a design that one wonders it was not adopted. The main pier, it will be noticed, while of the French Reims-Amiens type, develops the English rendering of four very delicate subsidiary shafts banded to the central column, in place of the heavier French engaged colonnettes.

505—Exterior of choir, Westminster. (From photo.)

506—Interior of triforium gallery of south transept, Westminster. (From photo.)

Even when in French piers, as at Laon, detached monolithic colonnettes were used they were heavier and affected the outline of the pier much more strongly. Westminster is the culmination of the Early English pattern, and marks the passing to the Decorated manner. Purely English elements show themselves in such parts of the general design as the lancet form of the main arcades, the windows

of the triforium and the battlements. But it is on the decorative de-
tails of the interior that the English architects and stone-masons
set the stamp of their national genius. One notes at once the absence
of foliated capitals and the circular turned abaci, the rich tapestry-
like pattern carved on the entire wall space between the triforium and
the main arcades, the heavy ornamentation under the hood-moulding
of the triforium arcades, the rich profiling of the main arches.

One goes to Normandy for some prototypes: for example, to Bayeux
cathedral for the tapestry effects; and one finds in contemporary
parts of Ely and Lincoln corresponding figured sculpture. The
triforium is not blind, as ordinarily, but has a line of circular windows
—large oculi—inscribed in curved triangles; a form that was to be
adapted for the main clearstory at Lichfield. It must be remembered
that the interior of the Abbey, though so uniform, is by no means
built all of a piece. The choir, transept and one bay west of the inter-
section were the only parts built between 1245 and 1260. Some work
was done 1260–69, but the main part of the nave was not built until
1350 to 1422 and even later; the vaulting in c. 1500 when the chapel
of Henry VII was being added at the east end. It must be acknowl-
edged that the architects of the XV century probably had before
them drawings of the XIII century and followed them implicitly, for
there is not a trace of the developed Decorated or Perpendicular
styles which were successively evolved while Westminster nave was
in course of construction. There appears not to have been in England
another such case of splendid adherence to early type and resistance
to the temptation to use the current style.

Decorated.—Before entering into a description of the Decorated
style, a few things must be said on some details of Early English
decoration which were to be further developed.

If one were to select the three salient characteristics of Early
English and Decorated capitals of the foliated type, they would
probably seem to be: the very slender stems and stalks of the foliage
and their detachment; the heavy forward or sideward droop and over-
hang; the projection and undercutting of the technique. Pervading
all this, the national feeling for diversity, already described.
In fact, England showed her customary independence in the treat-
ment of capitals. Italy, to be sure, had clung largely to classical
forms and their derivatives, but the rest of Europe had followed quite
closely in the wake of France. England saw what French design was

like in the Canterbury choir and chapel, but did not adopt it, though for a short while she used similar designs, as at Chichester. The use of the hard Purbeck shafts probably suggested perfectly plain turned and moulded capitals of the bell shape that was the background of the French foliated designs. This led to the adoption of a circular in place of a rectangular abacus even in foliated capitals. This meant, of course, that the heavy corner crockets of the French type were not needed and so removed the reason for any breaks in the capital's sweep. In the grouped pier the plinth or abacus was at times, somewhat awkwardly, left a perfect circle, but at other times broken into a group of interpenetrating circles corresponding to groups of vaulting shafts. While the moulded capital was more popular for small shafts and groups it was also used, even at an early date, for the main piers, as at Salisbury, Rievaulx, Beverley and Southwell, and it is logical to suggest that it was encouraged by the Cistercians if it did not originate with them, as ever since the time of St. Bernard the order had set its face against sculptured decoration.

In the use of figured sculpture the scheme was also different from the French and European. Certainly it was far less felicitous. We find no encyclopedias in stone. In the insignificant portals there is no wealth of statues, tympanum reliefs, figured archivolts or bases panelled in low relief. The peculiarity of English portals, in the first place, is that they had no architraves and consequently no tympanum surface: the arch was open. Then it is extremely rare to find any but moulded archivolts except where a very broad curved surface is given a rather fat and unbroken foliated design. The gate of the north choir aisle at Lincoln, in Fig. 489, is typical of the richest form of this type. Of course there are exceptions. There is a charming portal at Lichfield and much later the imposing south porch at Gloucester, but even here there is only a moderate use of statuary: only where so much of French influence appears are there figured archivolts.

The bulk of figured sculpture consists of isolated single figures. They are not, as so often on the Continent, placed in connection with each other, but severely alone, each under a canopy. The richest arrangement as well as the best preserved of this type is the west façade at Wells (Fig. 470). Sometimes the effect of a screen is given by placing the statues very close together, as at Exeter (Fig. 507). But nothing can counteract the monotony of the scheme.

There is one feature of internal sculptural decoration that is notable, especially in Early English work. It has been said how chary French designers were of any internal decoration. English designers felt differently. A glance at the triforium of the north transept of Westminster shows (Fig. 506) how the entire wall surface is turned into a tapestry, while in the spandrels are figures

507—West front, Exeter. (From photo.)

in high relief. A similar scheme appears in the Angel choir at Lincoln (Fig. 486).

Some buildings in the Decorated style will now be described. Of course part of this has already been done. It was inevitable, considering the heterogeneousness of English buildings. Lincoln presbytery, Wells presbytery and retro-choir, were brilliant examples. Ely is a superb case of mixed styles which will again illustrate the transitions.

The main structure (nave and transepts) at Ely is Norman, and has been mentioned in Vol. II, where a general view of the exterior appears on p. 376, which fails to give the bulk of the Gothic work that extended beyond the octagonal lantern at the intersection on the right and forms the choir and east end.   The very remarkable piece of Early English work at the west end, however, appears quite clearly, with its south-west transept and single western tower, which occupies the width of the nave.   We give a view of this west end in Fig. 508
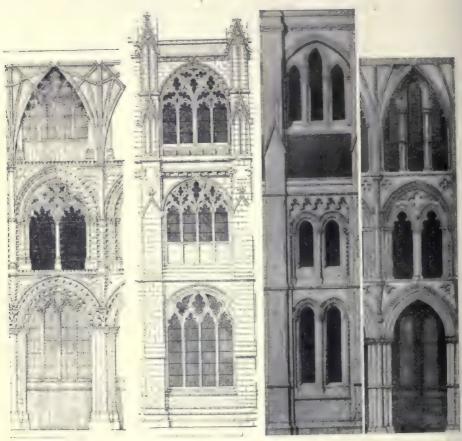
because of its unique design.   On the extreme right is one of the turrets of the transept seen in Vol. II, which one must not confuse with the porch.   This closed porch or galilee, of the same width as the tower and nave, projects boldly and composes well with the tower, especially if the tall spire which once crowned it is mentally put in the place of the late Gothic octagon.   The exterior of this uniquely large octagon appeared in Vol. II.   It was not part of the original design, but when the early tower fell in 1322, ruining the adjacent bays on all sides, the famous architect Walsingham, instead of replacing them, utilized the space for this central structure, which curtailed the nave by one bay and also shortened the transepts and choir.   He did what was becoming quite common,

508—West end, Ely.   (From Bell.)

especially in the north: he imitated stone vaulting in wood and so did away with the need of very heavy supporting piers, securing an abundance of light (Fig. 508).   Beyond this lantern are two gems of Gothic work, among the richest and most brilliant in England: the six bays of the presbytery at the extreme east end, being Early English work of c. 1240, and the three bays of the choir between the presbytery and the lantern, being Decorated work a century later in date (c. 1325–1350).   The two are placed together in Fig. 509 to illustrate the change in style.   The combination of

richness and simplicity in the presbytery is well shown in Fig. 510,
which gives the vaulting system, the gallery and details of the clear-
story. The difference is most marked in the exterior on account of
the tracery, which during the intervening century had not only been
introduced but had passed from the geometrical into the curvilinear
stage. In the interior the later architect was able to make his new
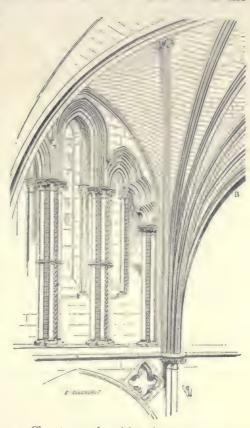
509—(a) Bay of choir, Ely. (From Dehio.) (b) Bay of presbytery, Ely. (From Bell.)

work in the main arcade and triforium harmonize extraordinarily
well with that of the earlier designer, because even in this part there
was a great richness of decorative detail that makes it belong more
logically in the early phase of Decorated; for example, in the crockets
between the shafts and in the corbels of the vaulting shafts, the
details of which appear in Fig. 510. Here also one can study the de-
velopment of lierne vaulting out of early fan vaulting until the rich

pattern in the north-east Chapel (Fig. 523). The resemblance to the Angel choir of Lincoln is marked. On the exterior, again the east end is one of the most successful of the early designs, just after Salisbury and shortly before Lincoln. It excelled the former because its height was not diminished but continued on a level with the nave, but it attempted to do by a multiplication of lancets what was done by the few grand traceried windows of Lincoln.

The York western façade is the most complete, symmetrical and decorative embodiment of the type with two towers and central gable (Fig. 511), and here again we can trace French influence far more than in the other two façades of Wells and Lichfield, where there was an attempt to combine the two-tower type with the screen. The closest analogy is with the later façade of Beverley. At York the curvilinear Decorated predominates: at Beverley the Perpendicular, but the scheme is the same, with increased lightness and verticality at Beverley. The use of the sin-

510—Clearstory and vaulting of presbytery of Ely cathedral. (From Viollet-le-Duc.)

gle large pointed window instead of the rose-window, while it may have been anticipated in France (e. g. St. Nicaise, Reims), soon became the dominant feature of English façades, beginning soon after 1260. In this façade there is no projection beyond the aisle line—an unusual feature in England—and the vertical effect is emphasized by boldly projecting buttresses, planned evidently in view of the abandoned stone vaulting.

The plan of York, with its single transept in the centre, is typical of quite a class, though not as characteristic or original as the double-

transept type of Salisbury. Here again we find Early English combined with but dominated by the later work.
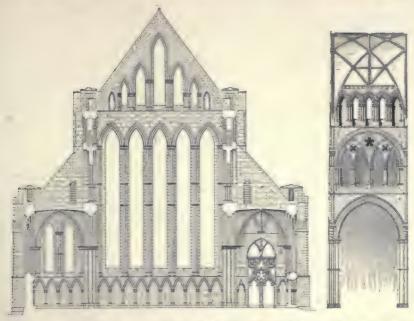
While York Minster is not an epoch-making work, it surpasses

511—West front, York cathedral. (From Bond.)
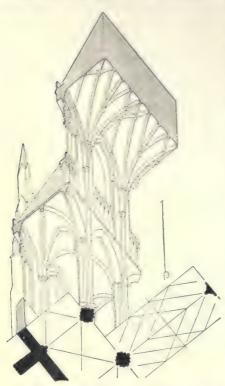
in the width and height of its dimensions all but Westminster, and is
unique in its use of wooden vaulting. Its earliest part, the transept,
seems to show the introduction in the north of the style developed at
Lincoln and in the south, in a way very similar to the somewhat
earlier work at Beverley; but it is a little bolder. slenderer and more
grandiose. To the small rose-window in the gable of the transept
façade at Beverley corresponds a much more splendid rose in the
south transept, while in the north transept this is replaced by an
incomparable group of five lancets which breathe the very (Fig. 512)

512—Section across north transept, with the "five sisters" and a bay, York. (From Dehio.)

essence of pure Early English, the famous "Five Sisters." Compare
with these the two superposed rows of three lancets at Beverley.
It is interesting to enter York at the South transept and get the view
across to the Five Sisters, and study the section of the transept in
Fig. 512 with its thin wooden pseudo-barrel vaulting and its diminutive
clearstory. The heavy walling makes it clear that the architect
intended a stone vault. The buttresses are cut short in an awkward
manner and would evidently have been lengthened and crowned with
pinnacles had the stone vault been built. On the whole, by its breadth
and double aisle the York transept was the finest in England. It
was built 1230–60, and was soon followed by the nave.

In its nave (1291–1324) York made a new departure. Breaking entirely with the system that dominated in the transept the area of the clearstory was enormously increased with large traceried windows of geometrical Decorated style and a reduced triforium. In Choisy's diagram (Fig. 513) it is evident how closely French models were fol-

lowed, e. g. St. Denis nave, not only in this grouping of the three parts but in the thin wall screen and the starting of the main vaulting shaft at the floor level. The pinnacles show that stone vaults and flying buttresses were intended, but that this was changed when the triforium level was reached and wooden pseudo-vaults substituted, so making the flying buttresses needless.

The choir, with its eight bays (1361–1405), with aisles extended to the end and with an insignifi-cant non-projecting east transept, is the latest part, and in the Per-pendicular style. Still it is archa-istic in design, for the sake of obtaining harmony with the nave and carried out even more thor-oughly the imitation of French models. The piers are of the Decorated scheme, as is evident in the view of the end, or Lady Chapel, remarkable for its enormous window, which is described elsewhere. There is a larger quantity of fine old stained glass in the windows of all parts of the church than in any other English cathedral, in fact it is the only rival in this respect of such French churches as Chartres and Le Mans.

513—System of York cathedral. (From Choisy.)

The mixture of styles is nowhere illustrated in more intricate manner than at Hereford, of which an exterior view, taken from the north-east, is given in Fig. 514. This does not show the surviving parts of the Norman church (c. 1108–1147), which are the lower part of the nave and the south transept. But Fig. 514 does show most of

514—Hereford cathedral from the north-east. (From photo.)

the succeeding manners. The east transept, built
in 1186–1199, is one of the earliest instances of
the western school, contemporary with and simi-
lar to Wells. The Lady Chapel is a gem of
primitive Early English (c. 1220) with a notable
group of five lancets, often compared to those of
York and Ely. The central tower, once crowned
by a wooden spire, is an unusually symmetrical
piece of Decorated work (c. 1325–52) and some-
what later comes the remodelling of the transept
The west end does not concern us, for it is a
modern reconstruction after a fire; nor the nave,
for what remains is advanced Norman, but there
is one feature of the interior—the north transept
—which is remarkable. In Fig. 515 both the
main arcade and the triforium have triangular
openings with lines of so large a radius as to be
almost straight—a premonition in 1260 or 1270
of such arches and hoods as those of Winchester

515—Bay of north tran-
sept, Hereford cathe-
dral. (From Bell.)

nave in 1371. We see here the same diapered foliage surface deco-
ration in the triforium as at Westminster. Another peculiarity is
the octofoil windows of the clearstory, a further attempt to solve the
short clearstory problem, similar to that which gave the triangular
windows at Lichfield.

As a contrast to the three square ending towers of Lincoln one turns
to the triplet at Lichfield to get in a more modest way some idea of
the original scheme of such a group before the destruction of the spires.

516—View showing low-lying type of an English cathedral, near water and outside centre of
city. Cathedral of Lichfield. (From photo.)

The most artistic effect is that of the flank, from a distance, as given
in Fig. 516. As the only church in England which retains its three
spires, one's critical sense is somewhat disarmed. Still, it is only
necessary to study their design to see that they are not the original
spires of the XIV century, but of debased Perpendicular style, mainly
of the XVII century and later. Of the west façade, "least said
soonest mended." It was the worst sufferer from the atrocious
restorations of the XVII century. The prince of vandals, the archi-
tect Wyatt, turned it into a mass of modern stucco and cement.

The flatness of its face, contrasting, let us say, with the vertical buttresses of Wells, is monotonous, but originally this and the rest of the exterior must have glowed with a warmth quite unusual, built as it is on the red sandstone of the local quarry.

We need study the interior only in its general aspects, as it has been so harmed by vandalism and restorations. Fig. 517 shows how the effect of the low vaulting is neutralized in three ways, most ingeniously; by making the main vaulting shaft spring from the floor, by pointing the arches both of arcade and triforium more than was usual, and by diminishing the height of the clearstory, which consists of the curved triangular windows that we have already seen in a minor rôle at Westminster, but which are here unique as main clearstory lights. The symmetry would be enhanced were it not for the characteristic heaviness of the piers and archivolts. The style is the geometric type of Decorated; the transepts were built a little earlier, but had at first a wooden vaulting. The Early English choir, which was contemporary with that of Salisbury (1220) if not earlier, was torn down to make way for the present presbytery in the late curvilinear Decorated style. Fig. 517 shows how the decision to leave some of the lower part of the old presbytery, with its heavy piers, ensured a greater uniformity between the two halves of the interior than was usually the case when a century intervened. The radical difference lies in the

517—Bay of nave (on left) and of presbytery (on right) of Lichfield cathedral. (From Bell.)

adoption of the two-storied in place of the three-storied type. This elimination of the triforium was, in reality, the only method by which an adequate clearstory could be secured. It is interesting to compare this early instance of the two-storied scheme with the Early English type at Southwell (Fig. 495), and the later perpendicular type at Winchester, in Fig. 531. Lichfield is valuable as running the gamut from the beginning of Early English to the rise of Perpendicular in a peculiarly harmonious manner, even if on a small scale.

In the south-west, at Exeter, the cathedral shows unusual unity in illustrating the different stages of the geometrical and curvilinear Decorated style. The richly carved west front has already been given in Fig. 507. There is about it something crude and barbaric in a time of refinement of forms; yet the architects showed originality in many ways; in the screen-porch masking the lower part of the façade (an idea reproduced in later examples), and especially in the substitution for a central tower of two towers marking the transept ends.

518—Nave of Exeter cathedral. (From photo.)

The hall-like effect of the interior is also marked; and the rhythmic variation of tracery design. The unity of style is the more remarkable as the core of the building is Norman, though this is apparent only in the towers. The reconstruction began at the east end, toward 1280, and the entire scheme was then planned, though it was about a century in execution, the nave dating between 1308 and 1350. Its actual ratio of height is 2 : 1, the same as Lichfield (34 x 69 feet), but the wider span (20 feet) of the arcades and the fact that the vaulting shafts start not from the floor-line but from corbels, make the low-

ness more apparent. The view in Fig. 518 shows the strongly artic-
ulated vault, the most impressive development of pure fan vaulting
with panelled severies in all England. A curious feature is the use
of the corbels, not only for the vaulting shafts but for the hood-mould-
ings, an evolution out of such corbels as those of Ely and Lincoln.

A most entertaining experiment was tried in the choir of Bristol
cathedral. Fig. 519 shows how the three aisles were covered by a
single roof and by vaulting of the same height. In the Temple
choir, where the vaults are practically also on a level, the width of
the three aisles is sufficiently
close to allow of even crowns
and spring levels, but in the
Bristol choir the aisles are so
narrow that the architect con-
structed a double scheme of
vaulting, springing from two
levels. The lower system was
a skeleton vault which is sup-
posed to have some value in
receiving the thrust of the
central vault, but which may
have been conceived merely
as a decorative feature in or-
der to conceal the awkward-
ness of the higher spring of
the real aisle vaults. Our
view is taken in the south
aisle of the choir. The date
of this work is the XIV cen-
tury. Its design is ingenious,
and shows one of the ways
in which English architects

519—South aisle of choir, Bristol. (From Bell.)

juggled with vaulting schemes, perhaps to secure the effect of a three-
aisled hall church, common on the Continent, but never acclimated
in England, where the single-aisled type of hall interior, so common
in parish churches, was the only form used.

The greatest glory of the Decorated style is its development of
the traceried windows. There is nothing on the Continent comparable
to some of those that fill either the east or west ends of these English

XIV century churches. The west window replaces the Continental rose-window, on a larger scale: the east window was evolved out of the square ending. The evolution began at Lincoln and reached the culmination of its first stage in the east end of Carlisle (Fig. 520)
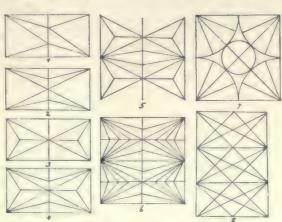
520 —East window of choir, Carlisle.
(From Bell.)

between c. 1320 and 1360. English critics consider it the most beautiful of all Gothic windows, even though a large part of the mouldings has been renovated. The exquisite delicacy, symmetry and harmoniously flowing character of the design places it above its rival at York. The scheme is to unite under one head two separate designs, not contiguous as a French designer would have made them, with a common central mullion, but separated by a single section which expands into the crown of the head, thus giving nine sections. This scheme was adopted on a smaller scale and followed into the Perpendicular style as at Hull (Fig. 554).

Vaulting.—At this point the general subject of vaulting must be considered. The peculiarities of English vaulting began almost at once, in the vaults of St. Hugh at Lincoln, in 1192. In Fig. 521[1] we see the constructively puzzling and æsthetically ugly irregularity of these vaulting-cells, due to the desire to multiply the number of cells. Already for some twenty years the English masons had been adding at times a transverse ridge rib (Fig. 521[2]) to cover the imperfect joints due to the less scientific constructive method used here as compared to the French, who shaped each vaulting stone, whereas the English mason stuck his in without shaping, so that at the ridge there were ragged edges, imperfect joints and a source of weakness. The ridge ribs covered the joints. The English severies being flatter than the French, this was a second source of weakness, and at Lincoln the reduction of the area of each, in order to counteract this weakness, was the evident intention. But a better and more symmetrical method was almost at once devised, through the addition of two

other sets of ribs: (1) the longitudinal ridge rib (Fig. 521³) and (2) the pairs of tierceron ribs (Fig. 521⁴) by which sixteen severies were obtained instead of the French four.   The tierceron rib is a secondary rib flanking the diagonal rib not connected with the crown of the vault, but abutting against the ridge ribs.   This scheme admitted of several variations.   The longitudinal ridge rib might be stopped at the tiercerons instead of running through to the next vault; or there might be only a single tierceron flanking the diagonal, either in the direction of the axis or transversely.   This occupied the builders' ingenuity during the Early English period.   But with the advent of the Decorated there came a multiplication of the tiercerons, toward the transverse ridge ribs and with this the abolition of the transverse arch which becomes indistinguishable in size and form from the tiercerons. Thus was created the fan-shaped vault (Fig. 521⁵).   This type necessarily projected far from the wall and, especially when the space between the ribs became so narrowed
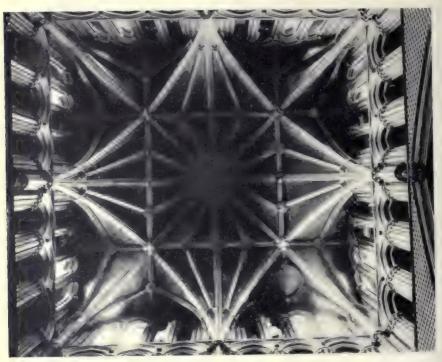
521—Progressive diagram of English Gothic vaulting.
(Selected from Bond.)

1, Lincoln, St. Hugh's choir; 2, Lincoln, presbytery; 3, Chester, chapter-house; 4, Lincoln, nave; 5, Lichfield, nave; 6, Exeter, nave; 7, Westminster, aisle of chapel Henry VII; 8, Gloucester, choir.

that it could be spanned by a single stone, the cells were flat instead of domical and each of the four springs took, as they rose, the form of a semi-cone of almost perfectly semicircular outline.   Bulking so largely, the tendency to use the severies as decorative panels was irresistible, given the English tendency to internal surface decoration, combined with the fact that the severies had constructively become panels. This brought in another set of ribs: the *lierne* ribs (Fig. 521⁶), which were secondary, connected neither with the spring nor the crown of the vault, but spanning the spaces between the main ribs and thus assisting to transform the severies into panels both constructively and decoratively.   They were sometimes curved, in concentric circles, to assist the fan-like effect; sometimes they paralleled the lines of the tiercerons,

and sometimes they are run diagonally. The design is often made to give star-shaped forms in and around the centre, so that the stellar dominates the fan-shape. The lines are now broken or supplemented by purely decorative details, and this richness culminates in the Perpendicular period, in the extravagancies of Windsor, Oxford, Cambridge and Westminster, with their lace-work and pendants.

The early progress of this vault evolution, as illustrated in the diagrams of Fig. 521, gives the main phases only, and not the variants. The evolution of the early period is best represented at Lincoln cathedral, where the curious irregular vaulting of St. Hugh's choir (Fig. 483) is succeeded by the splendid nave vault with single

522—Tower vaulting, Lincoln cathedral. (From photo.)

pairs of tiercerons (Fig. 484), a continuous longitudinal ridge rib, and transverse ribs ending at the tiercerons. In the presbytery (Fig. 486) of Lincoln the transverse ribs and their tiercerons are omitted. In the South transept at Lichfield the system is similar to that of Lincoln nave, but long stones are used spanning the entire space between the ribs and so forming panel severies and advancing the conoid away from the nave wall. There are special developments

of interest, as, for instance, in the vaulting of the great central towers.
In Fig. 522 is a fine example dating c. 1380 from Lincoln tower. Else-
where it will be noted how the very origin of the fan-vaulting must
be sought in another special group: the chapter-house vaults. The
most spectacular development of the simple fan-vaulting comes
at Exeter nave (Fig. 518), in which the ribbing completely over-
shadows the severies. There is a revulsion from this: the ribs become
slenderer again as the introduction of the lierne ribs and panel dec-

523—Vaulting in north-east chapel of Ely cathedral. (From photo.)
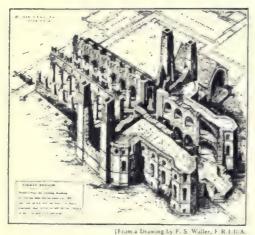
oration progresses. In Fig. 523 a rather charming example of simple
panel decoration is given from the north-east chapel at Ely. The
very simplest form of lierne vaulting appears in the main vaults
of Canterbury (Fig. 530), and the most intricate of the straight-lined
type in the choir of Gloucester (Fig. 526) or the nave of Norwich,
out of which come such developments as St. George at Windsor.

French archæologists and critics, who have led in the modern
scientific study of Gothic, have, quite naturally, felt a strong dislike
for what they considered a misplaced, not to say outrageous, form of
decoration, and have denied to the English evolution of vaulting
any constructive value. This is an error. A glance at the system
of construction of the Windsor vault in Fig. 536 will show how by

the most careful adjustment of each unit a self-supporting panel vault was constructed, which became independent of the support of any ribs and which was in its way just as wonderful a piece of puzzle structure as the French wall and skeleton construction of the schools of Troyes and Carcassonne! One may differ as to the good taste of a great deal of the decorated vaulting; but some of it is undoubtedly beautiful as well as original and constructively brilliant. Also, it was a distinct contribution to the international Gothic stock. In France it was never popularized, hardly extending beyond its natural province, Normandy (Caen, Eu, etc.: see Vol. III, Figs. 130, 137, 139). But elsewhere in Europe it found favor. Very soon it travelled to Germany, and in Spain it was used and developed with such brilliancy and original variations as to almost rival the English models.

To put the matter in two words, the use of the vault as a vehicle for design and decoration, and to make of it finally, in fact, the main centre of internal decoration, is an English invention, and one of the greatest importance, whether one approve of it or not.

Perpendicular.—After the middle of the XIV century one witnessed a phenomenon that seems at first abnormal, the adoption

[From a Drawing by F. S. Waller, F R I B A.   [From a Drawing by F. S. Waller, F.R.I.B.A.

524—Gloucester cathedral. (From Bell.)

of a simpler manner of Gothic, when the rest of the world was preparing to plunge into a more extravagant exuberance. Hardly had England introduced the curvilinear decorated system of tracery to France and the rest of the Continent where it was to be developed

and to rule until the advent of the Renaissance, than she herself began to substitute for it a rectilinear design in tracery combined with broad low-arched openings. This Perpendicular style was infinitely easier than the Curvilinear both to design and construct, yet it was certainly not adopted as a result of any growing incompetency in the handling of stonework. Quite the contrary. Not only was the workmanship never so scientific, but we must attribute the invention

525—Gloucester cathedral, from south-east.   (From Bond.)

and early popularity of the new design to the greatest school of stone-masons in England, the western school of Gloucester. Neither was it due to any Puritanical desire for simplicity, as it coincided with a more elaborate development of the vaulting design by which the ribs and severies were multiplied in many forms of fan and lierne vaulting, and decorated severies or panels. Mr. Bond has suggested that the real explanation is the desire to develop stained glass in the great windows, a desire that had been largely thwarted by the

curvilinear tracery. The upright parallel lines of the new style gave
an excellent framework for figures both single and grouped. At
any rate, though immense windows had become fashionable for some
time before the curvilinear style went out, there was a consistent
increase in size from the very beginning of the new style, and this
increase seemed to call for the low arched form which required the
support of the vertical lines of the filling. The new design spread

throughout England gradually for about fifty
years before it gained complete supremacy to-
ward 1400.
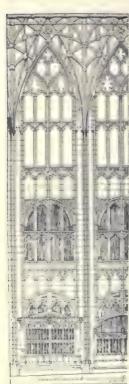
The first work of pure Perpendicular is at
Gloucester cathedral, which will now be studied
in its rather complicated development.

The Norman nave of Gloucester has been
mentioned and illustrated in Vol. II, p. 381.
Referring to Fig. 524, then, it will be seen, how,
in 1242, the upper part of the nave, including
the clearstory, was remodelled in order to sub-
stitute vaulting in the Early English manner
for the wooden roof, including, of course, the
corbels for vaulting shafts. The same economi-
cal retention and remodelling of the older work
with the utmost ingenuity is shown in the rest
of the building, but the Norman masonry is so
overlaid with rich Gothic decoration and sub-
stitution that one needs the informing sketch
of Mr. Waller in Fig. 524 to show how much of
the old skeleton was retained by the architects
of the XIV and XV centuries. The particular
value of Gloucester is (Fig. 525) all at its east
end. The west front is not given here because
it is comparatively insignificant, having lost its twin towers in the
remodelling of the XV century. It is of the same type as Exeter.

This view of Gloucester cathedral from the south-east shows
Perpendicular exterior grouping at its best. As a composition it is
unsurpassed in England, with the open stonework of the parapets
and pinnacles, the enormous expanse of windows and especially the
wonderful east end window, with its gable, and the splendid hall
(1472–98) of the Lady Chapel nearly a hundred feet in length (96.6 x

25 x 46.6 feet), an earlier rival of the Henry VII chapel at West-
minster. The remodelling of the choir between 1337 and 1377 in a
uniquely daring and original manner gave rise to the Perpendicular
style and disclosed the unrivalled mastery of the Gloucester school
of masonry. The sketch in Fig. 524 will show how the Norman
heavy masonry was stripped and then faced, overlaid and screened.
This broad internal tracery is better given in Fig. 526, which illus-
trates the beauty of
the new work, the char-
acteristic verticality of
its lines, and the in-
genious originality of
the design. This choir
is 140 feet long. In its
height of 86 feet it sur-
passes all other Eng-
lish vaults, except of
course Westminster.
The east window meas-
ures 72 x 38 feet, about
equal in area to the
York window, where
the proportions are
slenderer (78 x 32
feet). The design at
York gives three equal
groups of three—nine
lights. Its date is 1361,
some twenty years
later than the Glouces-
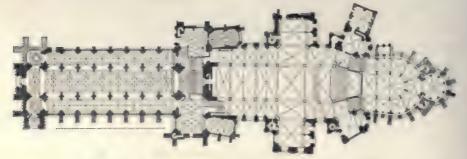
527—Cloister of Gloucester cathedral. (From photo.)

ter window. Both windows retain traces of Decorated design: at
York it appears in the head; at Gloucester in the triple division
evolved out of such a design as Carlisle, in Fig. 520. No judge will
hesitate to consider the Carlisle window more beautiful than its
somewhat more colossal but also more monotonous and common-
place successors.

The cloister may as well be mentioned here, because it also was
an early landmark of Perpendicular work (begun 1351). The view in
Fig. 527 shows one of the four sides with very well preserved fan-

528—Plan of Canterbury cathedral. (From Dehio.)

vaulting of a type that may have originated at Gloucester itself—
a shifting to the vaults of arcaded design.

Canterbury cathedral was described in its early Gothic parts
on p. 15, while its curiously irregular plan in Fig. 528 shows how the
western transept and nave
were added to the early choir
in the Perpendicular style at
the close of the XIV century.
The view across this transept
in Fig. 529, with the heavy
screen of slightly later date,
and the great Perpendicular
window, makes it clear how
picturesquely the two sections
were joined at different levels.
If we compare the nave in Fig.
530 with its contemporary at
Winchester (Fig. 531) it is
evident that its designer
showed a remarkable ten-
dency to vertical articulation.
The splendid piers project so
strongly into the nave, and
are so connected by member-
ment with the vaulting, whose
heavy conoids rest upon them,
that they make the nave

529—View across west transept, Canterbury cathe-
dral. (From photo.)

arcades and walling seem like decorative rather than functional
features. They almost give the effect of a single-storied elevation.

The high side-aisles and nave arcades are a novelty. The main defect is the short clearstory with mullions that are prolonged to panel the blank wall between it and the nave arcade. This substitute for the old triforium gallery is more prominent here than at Winchester. The effectiveness of this interior is still further diminished by the lack of illumination at the east end. The reinforcement of the four piers of the central tower is largely responsible for this defect: the tower itself is so much slenderer than the average that the light from it does not materially affect the lower part of the church.

We have seen that English cathedrals offer greater complexities of style than those of any other country. This is sometimes tremendously self-evident in such contrasts as the naves of Gloucester or Norwich. At other times, however, this is studiously concealed, as at Winchester. This cathedral is the longest in England (530 feet), which means the longest in existence. Without western towers or independently designed façade, with only one transept and a single-storied central tower, its exterior is barren. Its plan is simple (though

530—Nave, Canterbury cathedral.   (From photo)

the single transept has aisles): a square-ending apse with two flanking chapels and an unusually long nave. Its scheme is Early Norman, and the transept and tower remaining in this style have been spoken of on p. 375 of Vol. II. But the nave went through an interesting transformation. It was forty feet longer with large towers, but when the church had been lengthened at the east end it was shortened at the west and the new façade planned. The old thick walling of the nave was left with its piers, its arches, its clearstory

531—Winchester cathedral: nave, from south-east. (From Bond.)

wall and even its roof-shafts: the Norman masonry was merely
veneered so that its forms became entirely those of the Perpendicular
style. This was done, however, in so artistic a manner by that
master-builder Bishop William Wykeham that it is generally con-
ceded that the proportions of this nave are the happiest in all Eng-
land, not even excluding Westminster.

Tudor.—The Tudor style, though the latest subdivision of the
Perpendicular, has so much distinctiveness that it calls for separate
treatment. The age of the cathedrals is now closed and the new age

532—Bath Abbey. (From photo.)

is one of civil architecture: even in the religious structures the personal
or civil note often dominates, as in the chapels of Oxford, Cambridge,
Eton, Westminster and Windsor. By some English critics, like
Mr. Scott, this is considered the ablest, the most original and har-
monious of English forms of Gothic.

The view of Bath Abbey in Fig. 532 shows the most complete of
the entirely ecclesiastical works of this time (1500–1616), seen from
the north-east. It is strikingly simple, with a few large units,
lofty in proportion. The west front differs only slightly from this
east end. As the confiscation of the monasteries by Henry VIII,
in 1539, put an end to ecclesiastical Gothic, and as Bath Abbey was not

commenced until 1510, it may be regarded as its last flickering expression. The main arcades of the nave are a heavier, lower and broader example of the four-centred Tudor arch than those at Winchester and allow of a proportionately larger clearstory. This seems to show the influence of the great chapels on the three-aisled

533 —Façade of King's College chapel, Cambridge.   (From photo.)

type. It has the normal form of fan-vaulting. The multiplication of transoms in the east window is noticeable: beside four main horizontal divisions there are two minor transoms in the window head.

The so-called New Building at Peterborough was a square-ending choir added to and enclosing the apse of the Norman building in the late Perpendicular style, with very curious effect. Its purpose was to make the plan conform to the normal square end. Stylis-

tically it is unique in this position: a glass-framed enclosure with fan-tracery similar to King's College, Cambridge, built at a time (c. 1450–1520) when but little was being done in ecclesiastical architecture.

King's College chapel at Cambridge has none of the preciosities, extravagancies or inconsequences of the Westminster chapel, its con-

534—Interior of King's College, Cambridge.   (From Bond.)

temporary.   It was built mainly between 1508 and 1515, though begun in 1440.   The view of the façade in Fig. 533 shows the ultimate evolution of the great west window, overshadowing the insignificant entrance, and the dignified side-view is relieved of monotony only by the vigorously marked stepping of the buttresses and the unusual height of the pinnacles.   The corner turrets perform their function as double buttresses and staircases.   It is the interior (Fig. 534), however, which gives at once the impression of the grandest work of

its class. It is the most perfect specimen in England, in the first place, of the Gothic glazed skeleton, of what the English call a "lantern" church. One forgets the baldness of Perpendicular tracery

535a—St. George's chapel, Windsor. (From photo.)

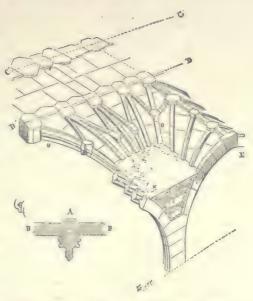535b—King's College chapel, Cambridge, looking east. (From photo.)

in the harmonious union of its strong vertical moulded lines with those of the fan-vaulting. This vaulting, far more delicate and restrained than that of Westminster, is without the pendant bosses and keystones except in the centre, and used even there with great moderation. The lines and proportions are peculiarly felicitous. One feels

that both in the exterior and interior of this building the architect
has shown the rarest of gifts, that of making the use of very large-
scaled units increase instead of decrease the apparent dimensions
of the whole.   The peculiar closed cloistered gallery on either side
replaces aisles and chapels and transepts.   How it appears on the
outside is shown in Fig. 535b.

The greater elaborateness of plan in the royal chapel of Windsor
is evident from the side view in Fig. 535a, with its double transept.
Here, also, though work was commenced before 1500 (c. 1473 and

esp. 1481), the greater part
dates from 1507 and 1537
and so is genuine Tudor of
even more pronounced type
than the Cambridge chapel,
with the panelling that is
so prominent at Westminster
and a further simplification
of the window tracery and
with an extremely low form
of the four-centred arch.   It
may be quite rightly criti-
cised for monotony in its
interior.   The same flatness
and breadth is characteris-
tic of the vaulting, which can
be studied structurally in
Fig. 536, which is typical of
the latest constructive phase

536—Vaulting of St. George's chapel, Windsor.
(From Viollet-le-Duc.)

of the English panelled vault, with its weighted haunches and thin
webbing.   The same system was more elaborately applied at West-
minster chapel.

The chapel of Henry VII at Westminster was built between
1500 and 1512 in place of the old Lady Chapel at the east end of
the abbey church.   Both inside and out it is a marvel of technical
ability and of decorative exuberance.   The exterior view in
Fig. 537 shows that vertical lines dominate and that the
system of panelling all surfaces is only a repetition with greater
minuteness of the perpendicular tracery of the windows.   The flying
buttresses with their reverse curve are extremely rich yet ineffective.

There is, in fact, a cloying effect to the whole composition as of an over-dose of preserves or caviar.

The interior has the same lack of broad effect that makes the exterior ineffective. The same minute panelling covers every inch between windows and vaulting. The vaulting itself is the ultimate development of the panel system. The simpler form of the aisles,

537—Henry VII chapel, Westminster. (From photo.)

with the single central pendant, is given in Fig. 538: the more elaborate scheme of the nave, the richest of its type, is given in Fig. 539. with triple pendants. A section of this vault would show, back of the panelling, which is only $4\frac{1}{2}$ to 5 inches thick, a girder-like pointed arch, continuing the line of each of the crocketed braces that abut against the side pendants. They sustain the vaulting, and their outline parallels that of the transverse arch in the foreground.
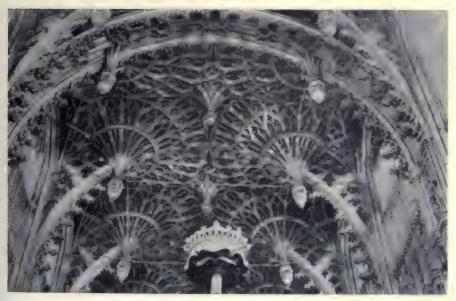
CHAPTER-HOUSES.—One other group of independent composi-
tions is formed by the Chapter-houses.   Here again, Cistercian influence
seems to have been para-
mount, as their monas-
teries required the largest
halls of assembly.   The
earlier ones were rec-
tangular and sometimes
large, like that of Foun-
tains and that of Furness
(61 x 45 feet), with three
aisles of four bays.   But
at Winchester the plan
was circular, with a di-
ameter of about 60 feet
and a central pillar con-
nected by ten arches with
the outer wall.   This de-
veloped logically into the

538—Vaulting of aisle, chapel of Henry VII, Westminster.
(From photo.)

polygonal ground-plan.   At first there was uncertainty as to the num-
ber of sides: at Dore Abbey there were twelve (c. 1180): then at Lincoln

539—Vaulting of nave, Henry VII chapel, Westminster.   (From Bond.)

there were ten (c. 1190–1230). It was at Beverley that the octagonal
form, which became the classic type, was first essayed toward 1230,
and its most perfect remaining early example is at Westminster, in
c. 1250, closely followed by the superb one at Salisbury. The diam-
eter of these halls varied but little from the early size of Winchester:

540—Chapter-house, Salisbury. (From photo.)

they measure from 59 to 63 feet. The wide bays in each face of the
polygon were completely filled with a large traceried window separated
only by the grouped pier from which spring the vaulting shafts, all
converging toward a tall central grouped pier. The lack of any
central shaft in the York chapter-house (c. 1300), with a diameter of 59
feet, gives an impression of unequalled boldness until one realizes
that in this case there is no stone vaulting—only an imitation in wood:

it is one of those regrettable cases, only too frequent in England after c. 1250, of an imitation of stone vaulting in wood. The heavy but-tresses show that it was planned for a stone vaulting and central pier. On the other hand, the Lincoln chapter was planned c. 1190 for a wooden roof and the free-standing buttresses were added c. 1230 when it was decided to vault it!

The glass house idea as carried out during the Early English period is nowhere more perfectly shown than in Fig. 540, the interior of the
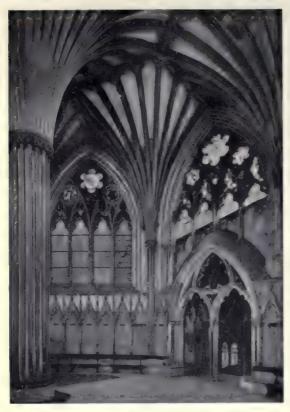

541—Vault of Chapter-house, Salisbury. (From photo.)

Salisbury Chapter-house and its vaulting system in Fig. 541, so graceful in its multiplication of ribbing, shows what is thought to be the genesis of the rich system of fan-vaulting which was to be adopted in the Decorated style. Evidently it was not in cathedral naves but in such concentric structures as this that the idea germinated. How it was handled in the Decorated period at Wells is shown in Fig. 542. Here in about 1310 the western school is still prone to the same heavi-ness that had characterized it from the beginning. Compare its vaulting with that of Salisbury and the evolution of the intervening

years will be evident. In the windows is Decorated tracery of the
developed geometrical type, just preceding the adoption of curvi-
linear forms.

An interesting early
variation is the chapter-
house at Lichfield (c.
1240), an irregular octa-
gon with two long sides
(40 x 27 feet), where the
untraceried two-light
windows with open head
belong to the transition
from the lancet to the
French traceried type of
Westminster. The mem-
berment of the central
pier is particularly rich:
it stands midway be-
tween Lincoln and Wells,
and foreshadows the fan
vault.

Another variant is at
Southwell (1280). Its
chapter-house was a reg-
ular octagon of only 35
feet diameter, so that no

542—Chapter-house, Wells cathedral. (From photo.)

central shaft was needed. It is a work of extraordinary beauty in
early Decorated style. The sculpture is most effective as well as
artistic and careful and would need more than Fig. 543 to do it

justice. The vestibule
and doorway are also
gems of proportion and
delicacy.

The Early English
Chapel of the Tower
of London can be
studied in this connec-
tion as an aisled con-
centric structure.

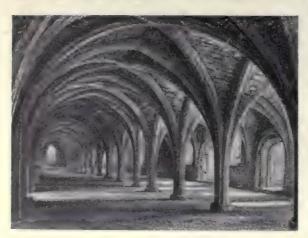

543—Chapter-house, Southwell. (From Bond.)

Monasteries —The Cisterian abbeys not only bred transitional forms, and illustrate the high water mark of Early English, as at Tintern and Fountains; they also furnish the best examples of subordinate structures.   Only in the case of cloisters (as in the case of the cloister of Salisbury, in late Early English, Fig. 544), Chapter-houses and episcopal houses do the cathedrals rival them.   The monastery of Rievaulx, the earliest in Yorkshire (1131), founded from Clairvaux, whose unusually large church (343 feet) had a superb Early English

544—Cloister, Salisbury. (From photo .

presbytery, had also a Refectory of the same date, 135 x 37 feet, under which was the *cellarium*. The Refectory at Fountains (1220–47), also Early English, though smaller (109 x 46½ ft.), is in better preservation.   The interior in Fig. 545 shows a central row of clustered piers of unusual form, being merely bundles of unbroken vaulting shafts.   The size of some of these monastic halls is shown, for instance, by the undercroft under the Laymen's Dormitory at Fountains, 300 feet long.   The Chapter-house at Fountains shows how the Cistercians adhered to the rectangular scheme when the polygonal plan was being adopted throughout England.   It is a three-aisled hall, 84 x 42 feet, with two piers.   The Infirmary was also in three aisles,

171 x 70 feet. Another large hall was the Common Room (104 x 29 feet), of early style. There remain also a kitchen (40 x 20 ft.),

545--Cellarium, Fountains Abbey.   (From Lefroy.)

guest-house, porter's lodge, almonry, &c., all in transitional or Early English style. At Furness there remains another interesting though smaller group, mostly of early date, including a rectangular chapter-house (60 x 45 feet), common room, guest-house infirmary (139 x 50 x 40 ft).

No country is so rich in monumental Gothic doorways, some free-standing, others spanning a road between buildings, still others mere entrances. Some belong to cathedral or monastic groups, others to college buildings or other civil structures. Nothing corresponding in the least to them can be seen in France or Italy. Only in Germany do we find a few bridge arches and the northern city gates to which we can compare them. But the English works are so incomparably superior both in design and detail that no rivalry is possible. The charmingly delicate gateway of St. Augustine's College, Canterbury, is in the early Decorated style (1309) and is among the earliest, Fig. 546. The Chain gate at Wells in Fig. 547, in the Decorated Style, is a Gothic equivalent of a triple Roman triumphal arch. Somewhat later we find a number of fine examples in the Colleges at

546—St. Augustine's College gateway, Canterbury. (From photo.)

Oxford.   They are among the features most successfully reproduced in our American imitations of English Collegiate Gothic, as they have become an impressive combination of portal and tower.   The view of Magdalen college quad-rangle in Fig. 548 will illustrate this combination.

A list of monasteries which re-tain some portion of their Gothic buildings is given in a foot-note.[1] They are well worth study. Near-ly all are in the transitional or Early English styles, only in a few cases, as at Howden and Sher-borne, is there much later work—advanced Decorated and Per-pendicular.   But the high-water mark of geometrical Decorated is reached at Guisborough and Tin-tern, where the early monastic severity entirely disappears, as it already had at Fountains. Among the most charming of the minor structures are the Gate-houses, of which a number remain.   The Gate-house of Kirkham priory is an

547—Wells Chain gateway.   (From photo.)

exquisite piece of early Decorated, with the shields of the noble patron houses and a group of statuary. Of a different type was the equally beautiful and slightly earlier gateway of St. Augustine's at Canter-bury.   Referring briefly to what will be said later as to the type of university architecture developed at the close of the Gothic period and to its connection with monastic types, it is interesting to note that New St. Mary Winton, founded at Oxford in connection with Winchester College by the famous William of Wykeham, in 1386, forms a typical connecting link between the monastic and secular

[1] The student interested to investigate this branch of architectural design should also study the ruins of the following list of more or less ruined monasteries: Glaston-bury, Evesham, Eastby, Kirkham, Netley, Battle, Tintern, Wenlock, Ramsey, Nutley, Buildwas, Walsingham, Thornton, Valle Crucis, Lanercost, Newstead, Margam, Kirk-stall, Lilleshull, Hexham, Croxden, Byland, Haughmond, Beaulieu, Bury St. Edmunds, Sherborne and Howden.

groups. It has its cloisters with Chapel and Common hall and Collegiate buildings. This group is important to compare with the secular group of Magdalen College, founded in 1458.

Colleges.—The academic buildings of England enable us to carry on the study of late Gothic after the catastrophe of 1539 until it died of dry rot during the XVII century. A little work of the Decorated style can be found, but the bulk is of the Perpendicular style and of its latest phase, especially the Tudor. There is, naturally, a simplification in all details as compared to ecclesiastical work, especially shown in the almost complete elimination of tracery. The large chapels, already described, belong to themselves and retain an ecclesiastical richness. How these chapels were composed with an

548—Oxford, Magdalen cloister. (From photo.)

academic quadrangle is shown in Fig. 548, which gives a view of the chapel, cloisters and towers of Magdalen College (1474–1565). The chapel, which forms the left-hand side, has a cloistered walk, which illustrates the scheme of King's College, Cambridge, and the two towers are good examples of both the heavy and the lofty types. The high tower in the distance composes with the outside face of the quadrangle.

The interest of these university buildings—now more closely studied and copied in America than any branch of Gothic design— lies largely in their massing and in the novel opportunities for composition which they afforded. In this way they equalled, if they did not surpass, their ecclesiastical prototypes, the monasteries. But,

while only *débris* of the monastic compositions remain in England, we can study many academic variations. A typical and rather early example of an outer façade is that of St. John's College, Oxford (Fig. 549); part of the design is of about 1437. Restoration has played havoc in this field, and some buildings have been largely refaced. Occasionally there is some interesting detail,

549—Oxford. St. John's College. (From photo.)

and perhaps the most astonishing instance is the staircase of Christ

550—Staircase of Christ Church College, Oxford. (From photo.)

Church College, Oxford (Fig. 550), where a slender, lofty and well-articulated central pier supports an excellent fan-vaulting, the more remarkable that its date is 1640. It is the latest piece of good Gothic work in England, and may well serve as a farewell.

Wooden Roofs and Vaults.—There still remains a side issue: that of wood vaults and roofs.

York and Selby bring up rather a burning question. It is that of the imitations of stone vaults in wood which was not infrequently used in the North after the middle of the XIII century. There can be no question that in both cases the buttresses with their pinnacles proclaim the intention of the designer to use stone vaulting, and that this was changed to the wooden imitation af-

ter the construction of the walls. There can be no artistic defense
of such an act. It sins against the cardinal principle of Gothic, which
is frankness and genuineness. In the choir of Winchester the decep-
tion is carried to its ultimate conclusion, because the flying buttresses
were actually built to receive the imaginary thrusts of a wooden
vault. The choir of St. Albans, also, is an example earlier than 1300,
of the imitation of lierne
vaulting in wood.

551—Westminster Hall: roofing system. (From Viollet-
le-Duc.)

Elsewhere it is noted
how general was the use
of wooden roofs instead
of vaulting in the parish
churches, but it remained
the privilege of the archi-
tectural carpenters of the
North to evolve forms of
roofing of artistic inde-
pendence and value, en-
tirely unconnected with
the forms of stone vaulting.
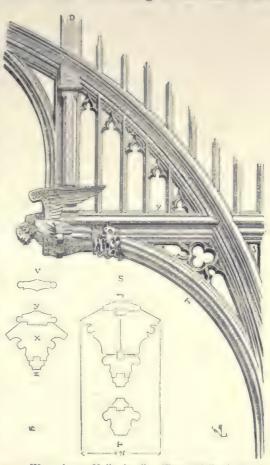
We have given in Fig.
551 the system of roofing
of Westminster Hall, not
merely because it is the
earliest and most colossal
work of its type—the ham-
merbeam roof, but because
it stands for the highest de-
velopment of a very wide-
ly used type of covering.
Throughout Europe and
Great Britain the majority
of civil constructions and

of smaller churches were not vaulted but ceiled or roofed. Practically
nothing has thus far been said of this type of building in the Gothic
age, because nowhere else than in England does there remain much in
the way of roofs that belongs to the domain of art rather than to
the mechanical trade of the carpenter. In some cases, to be sure,
there is an imposing general effect, as in the great Council room of

the Town Hall at Padua, with its pointed barrel roof, the nave of
S. Francesco at Siena, with its bare simplicity, the richly decorative
wagon roof of S. Fermo at Verona and the ceiling of the hall of the
Palais de Justice at Rouen.
But it is to England that
we must turn if we wish
to study forms of roofing
both elaborately artistic
and thoroughly scientific.
It would also be curious to
consider how much influ-
ence the forms of these
hammerbeam roofs with
their braces exercised on
the vaulting of the Tudor
age. A glance at the adja-
cent chapel of Henry VII
in Fig. 539 will make this
plain.

There are several such
schemes in England, espe-
cially in the North, in East
Anglia and in the region of
London, and the most ar-
tistic are the arch-braced
roofs and the hammerbeam
roofs.   In the double ham-
merbeam roofs in the naves
of March Church and

552—Westminster Hall: detail. (From Viollet-le-Duc.)

Knapton there is a rich design in color and figures of angels at the end
of each beam.   All the main component parts of the different systems
seem united in the great Hall at Westminster (Fig. 551–2), 68 feet
wide and 48 feet high.   It was built in 1397 on a pitch of 52°, and the
material, of course, is oak.   The fact that it combines the collar
roof with king and queen posts, with arched braces and struts and
also with hammerbeams, makes it a sort of compendium of this
branch of art.   Notwithstanding its magnificence, its heaviness
makes one feel that perhaps the more delicate single hammerbeam
type of Wymondham nave and the simple double hammerbeam type

of March were more artistic and symmetrical. The even less elaborate arch-braced roof of the nave of Chipping Norton shows how charmingly so simple a roof could be harmonized with the other architectural lines. But the even simpler, almost flat-ceiled, roofing of Holy Trinity at Hull is much less independent of stone models.

Parish Churches.—A more important rôle is played in England than anywhere else by parish churches. It has been noticed, even, that the type of architectural plan and arrangements evolved within this class strongly affected some cathedrals. Their towerless west façade— one of their two main forms—was not seldom adopted in the larger churches, as at Gloucester and Winchester. Were there space to do so, it would be most interesting to outline the various types of these parish churches as distinct from the two other main classes: the monastic and the cathedral churches. The earlier parish churches were without aisles, transepts or choir chapels. As the choir was for the use of monks or canons, its absence in a parish church was natural except in the limited form of a sanctuary or altar end. The transept, also, was a development accompanying that of the choir; so that the only feature adopted in the parish church of the

553 —Boston church, from the south-east. (From Bond.)

Early English period was the aisle, which was sometimes added symmetrically on only one side of the nave. A view of the church at Boston (Fig. 553) shows what splendid types were evolved during the XIV century. Here there is an elongated one-aisled chancel and a long aisled nave preceded by a closed porch under an imposing

central tower, completed at a later date. This masterpiece of Perpendicular work will serve also to illustrate the type of English west
front with the single central tower. At St. Neots the western tower
occupies the entire width. In this connection it is peculiar that
there should occur in England several cases of towers entirely

separated from and at
some distance from the
church—something
that we are accustomed to think as a
specialty only of Italian planning.

In the great parish
Church at Louth, the
chancel continues without a break in width
or height to the east
end, with three aisles,
and the great tower, a
rival to that of Boston,
is crowned by a very
pointed spire. The effect is well shown in
the interior of the
chancel at Hull which
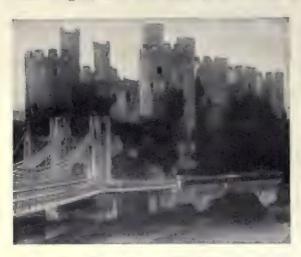
554—Holy Trinity, Hull. (From Bond.)

is certainly charming in its delicacy and lightness. At Hull, however, there is a different treatment of the rest of the plan: a great
central tower and a west front of a splendid towerless design (Fig. 554)
which is the culmination of the three-windowed type, which had
gradually evolved through the geometrical formula of Howden from
the early XIII century form at Romsey Abbey. It is a design peculiarly English and is a frank recognition of the logical unity of both
east and west ends—the result of the square east end of the Early
English period. A comparison with the east end of Lincoln is interesting.

The great majority of these parish churches were never vaulted,
but had lean-to roofs over their aisles and saddle-roofs over the nave.
This made it possible to diminish the bulk of the piers, increase
the span and height of the arches and to give a hall-like aspect to the

interior. This was especially the case in the remarkable group in East Anglia, and one may pick out as particularly characteristic

555—Conway castle. (From photo.)

St. Nicholas at Lynn, St. Stephen at Norwich and Long Medford in Suffolk. A particularly charming interior is at Chipping Norton, where panelling and framework of the Perpendicular style are brought into perfect harmony with the roof. The roof was at times extremely rich, of the single or double hammerbeam type, or barrelled and otherwise arcuated and panelled. Here was given full scope to the forms of wooden covering which are described elsewhere and which were usually not allowed in cathedral architecture.

CASTLES.—The reign of Edward III was marked not only by an efflorescence of ecclesiastical Gothic but by the transition in military and civil architecture from the more severely defensive and utilitarian to more artistically beautiful structures planned for comfort. The English supremacy abroad and the apparent security at home with the growth of centralized power put an end very largely to the local and feudal wars which made castles primarily for defense and not for residence. The Edwardian castles were

556—Entrance to Carnarvon castle. (From photo.)

on a grander scale than any in Europe. For some time the main buildings clustered irregularly around the keep and its inner court or bailey, but before the end of the century the old feudal scheme was largely superseded by a symmetrical rectangular plan in which all the stray buildings of the outer bailey were eliminated, and the necessary arrangements for servants and retainers made in the single rectangular structure regularly disposed about a closed court. The centre of the composition, the great hall on the side opposite the entrance, was not vaulted, as was often the case in Europe. In fact,

557—Plas Mawr: Queen's Sitting-room. (From photo.)

the habit of using wooden roofs throughout in all civil, civic and military structures distinguishes English from Continental buildings of these classes.

　　The view of Conway Castle in Fig. 555 shows the imposing character of the fortresses of the post-Crusading type in England when the square keep and towers had been displaced by circular or polygonal forms and more elaborate grouping. Architectural features were rather uncommon on the exterior until the XIV century, and their simplicity can be judged by the main approach to Carnarvon Castle in Wales, given in Fig. 556, where the traceried windows are unusual. Although England so surpassed all Europe in the splendor of her Edwardian castles, there is no remaining structure to compare with the great Castle of the Teutonic Knights at Marienburg.

In conclusion, and as a curious hybrid, a transitional building in Wales will illustrate the passing from vaulting to flat ceiling and from Gothic to Renaissance ornament.

At Conway, in Wales, in the Tudor Mansion of Plas Mawr, is a unique group of halls with a decoration in modelled plaster. In Fig. 557 is the so-called Queen's Sitting-room (from Queen Elizabeth), which is merely one out of several. The most interesting part is the ceiling, where there is a clear imitation on the flat surface of the ribs and bosses of Perpendicular vaulting. Such work was popular under Henry VIII, but of important examples of it very few are equal to the work at Plas Mawr, some of which is dated 1580, at the very close of the Tudor period.

Limits of space prevent any full treatment in these pages of this military architecture, as its interest is more historic than artistic.

CHAPTER I

ORIGIN AND EVOLUTION

AS a successor to Gothic the style which goes by the name of "Renaissance" was far slower in making its way through the different countries of Europe than the Gothic style had been in superseding Romanesque. This was due to two causes. Gothic had been a natural evolution of the preceding style: a solution of the puzzle that had been tantalizing most good architects for some time, and a solution that created no break and required no antiquarian or literary study. The Renaissance, on the contrary, arose in opposition instead of in evolution. It openly scorned and professedly threw overboard the artistic apparatus accumulated by the later Middle Ages. It was not easy to induce the architects of Europe to accept this revolutionary attitude.
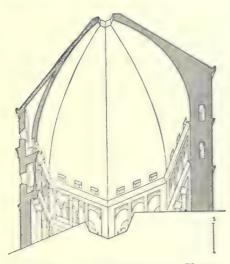
In the second place, the new style being based on antique models, must have seemed strange and unreal to artists and patrons who were unfamiliar with ancient buildings. It is not to be wondered at that while France and Spain, where Roman ruins were fairly numerous, followed the lead of Italy with relative alacrity, countries like Germany, the Netherlands and Great Britain, where hardly any such ancient models existed, should have been slow to accept the style and should in the main do it with large reservations. It was more than one hundred and fifty years after all Italy had adhered to the new movement that England saw her first building of purely Italian style at the hand of Inigo Jones in 1619.

Another element that made for the slowness of its progress was, perhaps, that it did not appeal at all strongly to the constructive element among architectural practitioners, which was an element far more to be reckoned with in northern than in southern Europe. Gothic methods might have been worn threadbare, but at least they

had been successful and were based on logic. The architectural world of Europe was well aware of the constructive incompetence of the Italians. It was only on the decorative and æsthetic side that the Renaissance could make a successful appeal.

In Renaissance art as a whole there were two main currents: that of realism and that of classicism. With the first we have here no concern, because while realism strongly affected both the painting and figured sculpture of the age, there is not an atom of it woven in the texture of the architectural fabric. Renaissance architecture is a reproduction of models without any reference to nature. The vivid use of plant life which was at the basis of the best Gothic decorative work was abandoned. Plants and flowers were seen only through the lens of Greco-Roman formalism. At first this was done with a sympathetic understanding that gave some chance for individual interpretation; but in the sixteenth century everything was thoroughly standardized and devitalized.

And yet individualism is at the basis of the Renaissance. In the history of Gothic the style, not the man, was the thing. It was the logic and swing of the style in its remorseless progress that carried the individual along in its course. We never ask who built a Gothic cathedral, or who began Gothic architecture. But we can and do say that Renaissance architecture was started by one man, and that man the Florentine Brunelleschi; and each new architect as he enters the arena is either the disciple of a certain man or an innovator whose personality brings a new element into play. It was natural that the Renaissance should be inaugurated in Tuscany, because

558—Section of dome of Baptistery, Florence. (From Choisy.)

its proper birth-place, Rome, had for nearly a century been a dead city, even since the Popes had left it for Avignon in 1305. Before this fatal date, however, Rome had passed the sceptre of progress to Florence. Cimabue and Giotto had both learned the mastery of their art in the Roman schools, and the second founder of sculpture,

Arnolfo, was as much Roman as Tuscan.   The Baptistery at Florence
is the building of the Middle Ages which as a whole most marvel-
lously reproduces antique models, and it was the product of artists
of the twelfth century who were either Romans or were trained in
Rome.   I am giving a section of the Baptistery dome in Fig. 558;
one of the gable-topped windows in Fig. 559; and a detail of the
internal entablature in Fig.
560.   The simplicity, the puri-
ty, the excellent proportions
are qualities worthy of the

559—Classic window of Baptistery, Flor-
ence. (From Supino.)

560—Detail of classic entablature and framework
of Baptistery, Florence. (From Supino.)

best classic age, and good Roman models are followed in the Corin-
thian capitals and in the rest of the details.   The classic orders, the
various forms of classic ornament,—dentils, anthemions, egg-and-
dart,—were all so well reproduced during the twelfth and thirteenth
centuries by the artists of the Roman school that it requires a
carefully trained eye to distinguish a medieval reproduction from an

antique model. In fact the imitation is often more perfect than was the case in the Renaissance of the fifteenth century.

Such examples as one can find at the basilica of San Lorenzo (c. 1220), or S. Maria in Trastevere (c. 1140) in Rome, or at the cathedral of Civita Castellana (1180–1210) can be set beside similar work by Brunelleschi and Michelozzo. In this proto-Renaissance Tuscany stood very close to Rome, while the entire South and almost the whole North of the peninsula were unaffected by antique forms.

The cause behind the man Brunelleschi was two-fold: a deep dissatisfaction with Gothic and a stimulated love of antiquity. Italy knew she had made a failure in her attempt to assimilate Gothic and she resented it. The question was how to find a substitute. The change did not originate, strangely enough, in the ranks of the professional builders, among the members of the guild of stone-masons, but among decorative artists, men who were metal workers and sculptors. It is curious to see how dominant a part these men and even the guild of painters played in such large architectural undertakings as the cathedral of Florence, whose dome is to furnish Brunelleschi with his great opportunity for fame. The model of the cathedral that was adopted and followed was one made by a group of Florentine painters and goldsmiths in 1367. The innate incapacity to understand the mathematics and science of construction was often joined in the Italian mind with a contempt for what they called the *science* of the subject as distinguished from the *art*. I have already shown how ridiculously and disastrously this was illustrated in the history of the cathedral of Milan in the days of Brunelleschi's youth.

Now this dislike for Gothic did not extend to all medieval work: and this it is very important to recognize if we are to understand the beginning of Renaissance architecture. The old theory was that Brunelleschi went to Rome more than once before 1418 and that he diligently copied, studied and measured the Roman ruins and fragments, deriving from them entirely the inspiration for his new style. But a new view is now being suggested, with which I heartily sympathize, and that is that Brunelleschi's larger elements were drawn from his study of Romanesque and other early medieval models and that the principal models were buildings in Florence itself!

Almost every striking feature which has heretofore been ascribed to an imitation of classical antiquity can be more easily explained in

this way. For example, the keynote of the portico of the Pazzi chapel
is the breaking of the entablature by a central arcade. This is shown in
Fig. 566. He could have derived it directly from the medieval porch of
the cathedral of Civita Castellana built in 1210, which he must have
seen (Fig. 561) in his trips to Rome. Nothing of the sort existed in
any classic ruins that he is likely to have seen. Then again, in both
of his church interiors at San Lorenzo and Santo Spirito the most per-
sonal touch is the use of the entablature block above the capital in the
arcades of the nave. It has been supposed that he either invented
this or derived it from the use of this feature as a bracket in support-

561—Façade of cathedral, Civita Castellana, dated 1210; proto-Renaissance by Roman
architects. (From photo.)

ing the vaulting of the basilica of Maxentius. But beside the fact
that it is to be found at the Florentine Baptistery in decorative form,
it was used constructively in the arcades of Santa Costanza at Rome.
In his dome he employs a medieval type which is the antithesis of the
dome of the Pantheon which Vasari so absurdly asserts was his model.
On the contrary, his model was, in part, the dome of the Florentine
Baptistery itself. From the Early Christian basilicas he borrowed
their arcades and coffered ceilings. From S. Maria Novella he took
his plan of San Lorenzo. His gable-topped windows at the Ospedale
degli Innocenti and his long decorative entablatures supported by
Corinthian pilasters, are almost fac-similes of his models at the Bap-
tistery. In fact, it would even seem that in his treatment of the
details of classic ornament we find at first a certain medieval flavor.
The Corinthian capitals at the Pazzi chapel instead of the high relief

and flexible surface treatment of good classic work have the flatness
and summary handling of some medieval reproductions both in Flor-
entine and Roman churches.

This does not affect the fact that Brunelleschi adopted, frankly
and absolutely, the forms of antique art in his decorative system.
Nor does it diminish his merit in experimenting with the tunnel
vault and in substituting domical vaulting in a number of forms for
medieval cross-vaulting. He evidently studied the ruins of the nu-
merous small concentric halls and buildings around Rome, principally
the large tombs or nymphæums, so many of which have come down
to us in the drawings of the San Gallo, of Martini and other Re-
naissance architects. He shows this in his unfinished and ruined cir-
cular church of the Angeli in Florence. Still, the best characteriza-
tion of Brunelleschi is, I think, as a classicing medievalist. Even at
the Angeli his dome on eight piers shows a Byzantine influence. In
the Pazzi chapel, where he shows proofs of an assimilation of classic
forms at first hand, the antique elements more nearly dominate than
in any other of his works. The coffered ceilings, the tunnel vaults,
the strigillation of the upper part of the portico, the small domes of
portico and apse, the use of semi-column and entablature to frame
circular openings,—these are all antique elements. And yet, the
effect is absolutely diverse.
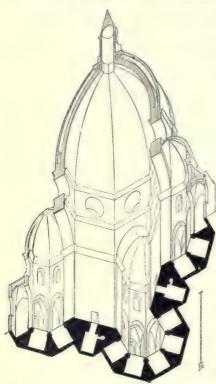
In analyzing Brunelleschi's style more in detail, I shall begin with
his earliest work, the dome which was the only part needed to complete
the construction of the cathedral of Florence in the early part of the
fifteenth century. We have seen, Vol. III, p. 272, that the Gothic archi-
tects of the fourteenth century had built it to the top of the drum.
In Mr. Moore's recent unsympathetic study of Renaissance archi-
tecture, the entire first chapter is devoted to this dome of the cathedral
of Florence; and rightly so, for it is one of the great historic landmarks
in the series of the Pantheon, S. Sophia and St. Peter's, which mark
the evolution of the dome both in structure and in form. Even he,
however, seems to ignore the fact that Brunelleschi's share in the dome
was confined to its construction, and that in its form he was merely
carrying out a scheme handed down from the past and imposed upon
him by the Building Committee. The medieval desire to make the
exterior quite as symmetrical and effective as the interior of a building
showed itself in the treatment of the dome. Roman and Byzantine
builders had been quite content with its internal formation and con-

structive safety. This had led to its partial concealment by an ex-
ternal supportive drum and by a wooden roof. In this way it hardly
emerged at all above the rest of the structure and often lost its
characteristic curved outline. The Romanesque and Gothic builders,
especially in Italy, had gradually evolved the scheme of a dome that
should rise far above the centre of the church, and their plan involved
changing the low semi-circular Romano-Byzantine dome into one of
pointed section; and also setting it upon a high drum, unconcealed by
enclosing supporting walls.

The small domes over the crossing in the cathedrals of Ancona
and Pisa were modest structures, only as wide as the central nave.
The architect of the cathedral of Siena, in the dome that was com-
pleted in 1266, had increased its proportions in relation to the building
so that its diameter extended almost across the aisles. At Florence
the final step was taken by Arnolfo before 1300 in planning for a dome
as wide as the body of the church. The fresco in S. Maria Novella
proves it. In this he was followed by the architects of the middle of
the fourteenth century, who gave it greater height both by adding the
high drum and by making the dome more pointed. The model of the
cathedral then constructed and used as a norm was followed as far
as the base of the dome itself. There is no doubt that the entire drum
had been built before the Building Committee in 1418 issued the
invitation for artists to present plans for the building of the dome,
which resulted in the competition in which Brunelleschi was awarded
the decision. In the view of the exterior given in Fig. 324 one must
consider the whole of the choir and transept to have been completed
up to the cornice surmounting the circular oculi of the drum. The
ground plan of the dome, its general form and outline were, therefore,
matters over which Brunelleschi had but little control. The previous
designers of the church had set an architectural task of enormous
difficulty to their successors. It is to Brunelleschi's glory that he
was successful in accomplishing it.

The characteristics of Brunelleschi's dome are: its vast size; its
construction from scaffolds without the use of centering; its dispens-
ing with any supporting abutments and its two almost concentric
shells, with their binding ribs. In plan it is octagonal, with a diameter
of $138\frac{1}{2}$ feet, and a height of about 120 feet, starting at the top of the
drum, which is 175 feet from the floor. It was on account of his
adoption of an extremely pointed form that Brunelleschi was able

to dispense with centering, and he also argued in its favor as giving a surer support for the lantern than the semi-circular section.

The wall of the drum was five metres thick. On it rests the solid base of the dome of six courses of heavy stone blocks fastened together with iron clamps. On this rose first the inner shell of the dome, 3¾ *braccia* thick at the base, diminishing to 2½ *braccia* at the lantern. Around this was a second shell. The space between the shells was 2 *braccia* at the base and 2⅕ *braccia* at the lantern. The second shell served, as Brunelleschi himself says, both against the weather (like the old wooden roofs) and to enlarge the structure. It was very thin, beginning at 1¼ *braccia* and ending at only ⅜ of a *braccia*. Binding the shells together and forming an internal framework, is a system

of twenty-four stone ribs or spurs. Eight of these ribs are of enormous size, rising from the angles of the dome and extending through and beyond both shells, inside and outside. They are seven *braccia* in width and join the ring around the lantern. Between each of them are two minor ribs, on each of the eight faces of the dome, only four *braccia* wide, which do not project. Binding all these ribs together, at intervals of 12 *braccia*, are arched bands of masonry, springing from the angle ribs and running horizontally through the minor ribs. Under these are oak timbers and iron chains to help bind the ribs in place. In this way it was possible to explore the entire surface between the two shells. Fig. 562 will make the description clear. Beside all this, and of the most

562—Section of cathedral, Florence, across Brunelleschi's dome. (From Choisy.)

vital importance to the stability of the structure, was a system of chains at the base of the dome, on the outside of the masonry, to bind the dome together and prevent any spreading.

From this analysis it will be clear that there was no connection

either in form or structure between this dome and that of the Pantheon, with its low shape and single shell of solid concrete as well as its solid base. On the other hand, the dome of the Florentine Baptistery has, up to a certain point, a double shell, bound together by a similar double system of vertical ribs and horizontal arches. The medieval connection is clear (see Fig. 558).

In judging any piece of Italian construction it must be once for all remembered that certain unscientific aids to stability were almost always used, so that the fact that a building still stands is no proof that it ought to stand on its constructive merits. The Italians were quite shameless in this, and saw no harm in it. It was the general habit to use heavy iron chains within the circuit of the masonry of a dome to tie it together and prevent it from spreading. Brunelleschi speaks of it frankly, and it is still mentioned by Fontana, one of the leaders of the Barocco post-Renaissance. By "faking" a centripetal coherence it was possible to raise domes on lofty drums, as at Todi, and give them a free outline. In the same way it was possible to give quite different proportions to interiors by a similar system of tie-beams of wood or, more generally, of iron. These were usually visible, stretching across aisles or naves or between arcades. Such methods were distasteful to northern architects, who hardly ever allowed themselves to use any forms that would not be constructively sound. Had the Italians of the Renaissance not sinned against this constructive idealism we should never have had any such domes as those of Florence or St. Peter, of St. Paul's, London, and all the minor domes that are so characteristic a feature of modern architecture.

The work on the dome, begun in 1420, was completed in 1436; but the lantern was not finished until 1461, after the architect's death.

While constructively the most important of Brunelleschi's works, the dome afforded no opportunity for the development of the new decorative scheme, based on classic models, which he, aided perhaps by Donatello, Luca della Robbia and other decorators and sculptors, made an integral part of the new style. Beside this facet of his art we must consider him: (1) as the reviver of the basilical church plan, in S. Spirito and S. Lorenzo; (2) as the creator of a reformed type of palace architecture distinct from the feudal, in the Pitti and Quaratesi palaces; (3) as the adapter of the Roman, Byzantine and Lombard plans of concentric and square structures surmounted by domes, in the church of the Angeli, the Pazzi chapel and the

sacristry of S. Lorenzo—all in Florence; (4) as the creator of a new
type of arcaded cloister and portico, at the cloister of S. Croce and the
Ospedaie degli Innocenti.

Both the large churches planned by Brunelleschi for Florence,
San Lorenzo and Santo Spirito, whose interiors are given in Figs.
563 and 564, are a distinct reversion to the Early Christian basilica
as preserved in both the Roman and Tuscan medieval schools, with
the addition of side chapels in a way that was just becoming fashion-

563—Interior of S. Lorenzo, Florence. (From photo.)

able (see S. Petronio at Bologna). There is the central nave covered
with a flat coffered wooden ceiling, separated from the aisles by a row
of rather closely spaced monolithic columns. A continuous line of
chapels opens out of the aisles, which are covered with a series of low
domes with transverse and wall ribs and are lighted by a correspond-
ing number of *oculi*. The round-arched openings into the chapels
are so large as to give the effect of a continuous arcade. This char-
acteristic, joined to the pilasters that frame them and support a con-
tinuous entablature, would remind very strongly of the Roman

scheme, as illustrated in the Colosseum, if it were not that, according to Brunelleschi's favorite plan, there is no break in the lines of the mouldings by pilaster capitals which would establish a system of jambs and archivolts.

I have already referred to the peculiarity shown in both of these interiors of an entablature block interposed between the capital and the spring of the arch. At Santo Spirito it is plain, but in San Lorenzo it is decorated in relief. It is interesting to bear this feature in mind, as it was so popular with many succeeding architects and is one that has been harshly criticized as being both æsthetically illogical and constructively reprehensible. In the capitals the Corinthian order is used. In the Middle Ages the Doric had gone out of fashion and Brunelleschi did not resurrect it. Neither

564—System of S. Spirito, Florence. (From Choisy.)

did he care for the Ionic of which his medieval predecessors had made such excellent use, and which was to be revived somewhat later.

The plans of the two churches vary. That of San Lorenzo, in the form of a T, goes back, through S. Maria Novella, in Florence itself, to Cistercian originals, with its square-ending apse and apsidal chapels. That of Santo Spirito is a pure Latin cross of quite another type, in which the aisles and the line of chapels encircle transept and square-ending apse as well as nave. Another difference is in the method of covering the crossing. At San Lorenzo it is a dome on pendentives, at Santo Spirito it is a ribbed circular domical vault similar to that in the Pazzi chapel. The simplicity of both interiors is so extreme as to give an impression of bareness. There is mainly but the contrast between the light tone of the walls and the darker tone of the stonework of cornices, archivolts and the rest of the architectural details and members. The design leaves no room for the

series of figured frescoes, so successfully used to decorate the early medieval churches, and yet it does not provide any substitute. It is in his smaller buildings, chapels and palaces, that Brunelleschi best displays his feeling for the decorative effects which he seemed unable to manage on a large scale. To be sure, it must be remembered that neither of these churches were completed during his life-time, so that he can hardly be held responsible for their decoration.

The Pitti palace (Fig. 565) is considered by many as the greatest creation of Brunelleschi's genius, even though it is not easy in its present state to visualize it as he planned it. His façade corresponded

565—Palazzo Pitti, Florence; central section, by Brunelleschi. (From Schütz.)

to the present central section of seven windows. It was probably intended to be crowned by the same heavy cornice used by Michelozzo at the Riccardi palace. What the original treatment of the plan may have been we cannot tell, as the present court and rear façade as well as the wings are additions by Ammanati in the sixteenth century (1518) and by others—between 1620 and 1625. The façade is certainly, in its broad and rugged rustication, "first cousin to the rocks," a modern version of Cyclopean masonry. Not that Brunelleschi invented rustication. He had his model for it in his own city in the Palazzo Vecchio, and he might have seen it in other works of the

Gothic age such as the Palazzo Castellani in Florence or the Palazzo
Pretorio at Volterra. It is more natural to feel that he was inspired
by these works than that he harked back to Roman rustication of the
Claudian age such as the Porta Maggiore in Rome or the Claudian
aqueduct.

The plan of Luca Pitti was to have the most imposing private
palace in Florence. Work was begun from Brunelleschi's plans in
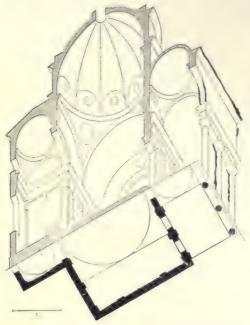
566 —Façade of the Pazzi chapel at S. Croce, Florence. (From Geymüller.)

1435; the cessation of work, toward 1460, was due to the downfall of
the Pitti family fortunes. The type is the severest and most grandiose
created by the Renaissance. It is difficult to analyze its effect be-
cause it consists of so few architectural elements. There is no use
of the classic orders; only string-courses separate the stones. There
are no features to the windows except the heavy voussoirs. In fact
there is not a single classic element. One might call it Romanesque,
as practically the only modification of the Palazzo Vecchio type is
a return from the pointed to the round-headed arch.

This was not the only type developed by Brunelleschi. In the

more modest Pazzi palace (now Quaratesi) the lower story is the only
one rusticated. The second and third are stuccoed, and have charm-
ing two-light windows which form the greatest contrast to the Pitti
windows. A trellis and vine pattern decorates the continuous en-
circling moulding and a wreath with streamers fills the field above
the two lights. The models here are medieval, not classic. But
in the court the medallions with busts in the spandrels of the arcades
are distinctly classic and in the dolphins decorating the capitals one
sees the study of such models
as the Pantheon dolphins.

567—System of the Pazzi Chapel, Florence.
(From Choisy.)

The most exquisite of all
Brunelleschi's works is the
Pazzi chapel of which a gen-
eral view appears in Fig. 566
and the system in Fig. 567.
The approach to it across the
Santa Croce cloister in its
artistic seclusion emphasizes
the restraint of its style and
the felicity of its proportions.
The date usually assigned to
its foundation, c. 1420, would
make it the earliest of his
works except the dome, but I
rather favor the recent sug-
gestion of c. 1430, because of
the advanced character of the
decorative work both in mar-

ble and glazed terracotta, which could hardly have been planned until
1430–40. Its plan is substantially a rectangle with a central circular
vault which, though it rests on pendentives, cannot be called a dome
because it is divided by salient ribs into twelve domed vaulting com-
partments on a Gothic plan. A small dome covers the apsidal chapel
and another surmounts the central bay of the charming porch, which
otherwise is covered with a tunnel vault. These serve as abutments
at the front and back. On either side are two narrow wings or com-
partments covered with high tunnel vaults which rise to the level of
the base of the central vault and perform a similar function. The
scheme seems almost Byzantine. The interior of the portico is a gem

in its decoration. The surface of the small dome is covered with lines of shells in glazed Robbia ware, which correspond to the classic coffering of the neighboring tunnel vaults. It seems quite astonishing that the tunnel vaults of the portico could be supported by the slender columns along the front. In the old sacristy of San Lorenzo, which is the only part of the church that was completed in the architect's life-time, the square hall is covered by a domical ribbed vault on pendentives similar to that of the Pazzi chapel, but the composition is less interesting.

In the façade and portico of the Infant Hospital (Ospedale degli Innocenti) built between 1421 and 1445, Brunelleschi gave a model

568—Hospital of the Innocents, Florence. (From Schütz.)

of low round arcades on columns that was consistently followed by Florentine artists and adopted by those of Northern Italy. It became the universal form for cloisters and, on a smaller scale, for the courts of private palaces. It was almost a century before it was partly displaced by the type with pier supports which was derived from Roman models. Its simple and graceful style stands midway between the severity of the Pitti palace and the richness of the Pazzi chapel. Fig. 568 hardly does justice to it precisely on account of this simplicity. The medallions of colored Robbia ware in the spandrels gave a note of strong color similar to that in the Pazzi interior. The windows, for all their classic air, are based on medieval design, because the similar gabled windows on the outside of the Florentine Baptistery are in several cases of pure twelfth century art. Brunelleschi's adoption of this type of window as well as of the round-arched type,

gave to both a vogue that lasted throughout the Renaissance. In the low calottes that cover each bay, with their transverse and wall ribs supported by wall brackets, he offers his substitute for the Gothic ribbed cross-vault. The two following cuts illustrate the two types of court which Brunelleschi and his followers created and popularized throughout Tuscany and further south. In Fig. 569 is the third

569—Third cloister of S. Croce, Florence.   (From Schütz.)

cloister of Santa Croce, Florence, in which we must restore in imagination the delicate open second story with its slender columns and architrave, eliminating the later walling and windows. The other type, with arcaded second story instead of architraves, is shown in much better condition in the smaller court of the monastery of La Certosa outside Florence (Fig. 570).

After this examination of the founding of the style, and before taking up the thread of historic development in detail, a summary will be in order.

Men and influences so grouped themselves during the Early and Middle Renaissance in Italy, between about 1425 and 1525, that four

principal schools were formed: first the *Tuscan*, with its centre in
Florence; second, the *Lombard*, receiving the new ideas from Tuscany
but modifying them fundamentally on local lines; third, the *Roman*,
founded mainly, it is true, by Tuscans, Lombards and Umbrians, but
under the influence of Roman antiquity purged of the medievalisms
of the first two schools; and, fourth, the *Venetian* school, amalgamated
from all the others, and in which the prevailing Lombard element
was modified and simplified.   Besides these, certain minor centres, like
Bologna, with its development of terracotta, showed marked individ-
uality and wide influence.   Little by little many of the local character-
istics were fused into a sort of national style, largely by the employment

570—Small court of the Certosa, near Florence.   (From Schütz.)

of certain leading artists in the domain of more than one school.
Almost at once the Tuscan artists had seen the possibilities of the
rich decorative work in which the Lombards rioted and had adopted
it with restraint.   Finally, toward the middle of the sixteenth century,
with the advent of the later Renaissance, the general use of scientific

handbooks of architecture based partly on Vitruvius, partly on the monuments and partly on pronouncements of the architects, popularized throughout Italy and beyond her borders a generic style which belonged to no region. Even this, however, did not entirely eliminate local flavor. Venice, in particular, preserved until the seventeenth century in her palace architecture a character that was all her own.

If one were to characterize in a single sentence the meaning of Renaissance architecture it might be: The revival of the classic orders and of the Roman decorative system combined with Roman and Byzantine forms of vaulting, under the influence of an artistic sense less constructive than it was decorative and with a degree of free interpretation that often degenerated into license.

The habit of considering a building more as a picture than as a piece of construction by Italian architects is largely due to the fact that nearly all of them had entered the profession after passing through the ranks of another art, or else continued to practice both. In a way they were primarily goldsmiths, decorative or figure sculptors, painters, and only in a secondary sense builders. In this they differed from architects elsewhere.

It seemed therefore quite natural to them to sacrifice constructive truth to æsthetic appearance. So we find many unfinished façades devoid of their revetment and a dreary meaningless expanse of brickwork because of this divorce of the two elements of structure and form. In this they only followed Roman tradition, though by different methods, using a brick in place of a concrete or a concrete and brick substratum. Hence, also the numerous false façades that do not follow the structural outlines. It has even been observed that in many cases the jointing of the stonework is artificial and does not follow the real lines of the courses. In arches formed of only three to five blocks there may be as many as nine or more voussoirs marked by the stonecutter. In Florentine palaces the bossed work does not always correspond to the courses. Of course, this is reprehensible from the point of view of the constructionist. The Gothic architect secured his æsthetic freedom from the yoke of the material, by overcoming structural problems and dominating his materials through science. The Renaissance architect sought to attain the same result by the easier method of structural makeshifts and concealed subterfuges, and despised the northern artist for giving so much importance to difficulties that could be avoided.

The first period extends from Brunelleschi (1397–1446) to the close of the fifteenth century (1420–1490); the second, or Golden Age, begins with Bramante and closes soon after the middle of the sixteenth century (1490–1550); the third is characterized by the scientists like Palladio and the sensationalists like Alessi (1550–1610). The movement that sets in toward 1620 we call Barocco and is not strictly reckoned into the Renaissance, though it was developed out of it. Its foremost apostle was Bernini. In fact it is quite customary to regard as Barocco representatives most of the architects of the previous period who followed in the footsteps of Michelangelo.

At the risk of some repetition I shall ask the reader to take a preliminary glance at the men to whom this development was due before beginning a study of their works, because now, for the first time in the history of architecture, the personality of the architect is the dominant factor in the evolution of forms.

When Brunelleschi died in 1446, no work in the new style had been erected outside Florence, although the Master had been to Milan, Ferrara and Mantua. The cathedral of Milan, San Petronio at Bologna, the Dcge's palace in Venice, were still being carried forward in the Gothic style; and transitional buildings, such as the chapel at Vicovaro, the hospital at Milan and many others attested the hold that Gothic still retained during the entire fifteenth century, especially in the completion of works already begun in that style.

The friend and follower of Brunelleschi, Michelozzo Michelozzi (1396–1472), was the first to carry the new idea beyond Tuscany and even beyond Italy. He introduced them to the Lombards at Milan and to the Dalmatians at Ragusa. His two masterpieces, the Riccardi palace and the chapel at Milan, will be described. He excelled his master in the marrying of marble decoration in relief to architectural details, probably because he had at first devoted himself to sculpture and had done masterly work. Brunelleschi had evidently planned to have his interiors largely decorated with frescoes in medieval fashion. These were never executed. The effect may be judged from Michelozzo's decorations of the chapel at Milan. But the most original part of his decorative system consisted in his introduction of the Ionic and composite orders beside Brunelleschi's Corinthian, and in the development of surface decoration, church furniture and architectural details. His doorways, pilasters, mouldings, tabernacles, altars and tombs were extremely rich and varied. The

disjointed and unsystematic decorative scheme of the interior of the
Pazzi chapel is replaced by a more systematic and well-planned ar-
rangement. At the same time, as an architect Michelozzo was a
follower; not an innovator. He did not plan any great constructions.

The relation of architects to their work changed quite radically
with the advent of the Renaissance. The old *maître de l'œuvre*, who
was continually present at the works, vanishes. Of course in Italy
where construction was always subordinated to decoration, the
actual labor of the architect, after he had furnished models or drawings
or both, was often confined to decorative details. This was the case
with Talenti, for example, who is largely responsible for the cathedral
of Florence. The documents show his personal work to have con-
sisted in the carving of the capitals of the nave whenever he was not
occupied with general oversight. But the daily personal supervision,
the contact between architect and workman, the actual handling of
tools by the architect, went almost entirely out of fashion with the
Renaissance and was substituted by a prototype of modern office-
work. Perhaps Alberti was more responsible for this than any one else.
He was a typical "humanist"—scholar, litterateur, antiquarian, con-
noisseur. He frankly deputed to others the carrying out of his
schemes. He is the third great leader.

Leon Battista Alberti (1404–72), born in Florence, was a great
traveller and better acquainted with Roman remains than the previous
artists. He did not merely apply a new form of decoration to medieval
structures; he conceived new types of structures. Whereas Bru-
nelleschi had been contented with wood-roofed basilicas, he gave the
keynote to Renaissance architects in his domical and vaulted churches
and in his façade designs after Roman models. He was thoroughly
penetrated with the spirit of ancient Rome, where he lived for a time,
and yet did not break with the past, as he shows in his façade of Sta.
Maria Novella. His Palazzo Ruccellai, San Francesco at Rimini and
Sant' Andrea at Mantua will also be described in detail. The key-
note of his work is its broad simplicity, sense of proportion and
beauty of line. He reduced the decorative element which Michelozzo
and the Lombards were emphasizing. In a way he anticipated the
scientific architects of the second half of the sixteenth century, and
laid the foundation for a Roman school.

Three architects, in particular, stand out prominently at this time
as indefatigable practical students of Roman ruins. They are Fra

Giocondo (1433–1519), Giuliano da San Gallo (1445–1516), and Fran-
cesco di Giorgio Martini (1439–1502).   They were also literary men
who wrote commentaries.   They have left, in numerous sketches and
plans, proofs of their studies, and they have embodied their views in
their writings.   Fra Giocondo, the Veronese, was the first scientific
expositor of Vitruvius, who was to become the fetish of the later
Renaissance. The Palazzo del Consiglio (Fig. 571) at Verona (1476–93),

571—Palazzo del Consiglio, Verona, by Fra Giocondo.   (From photo.)

in its exquisite proportions and decorations, embodies the expiring
joyousness of the early Renaissance.[1]   Giuliano, the Florentine, was
the most brilliant and travelled member of a family of leading archi-
tects who were closer adherents of classic models than their con-
temporaries: see his Barberini and Siena sketchbooks; the former
now edited by Hülsen.   Martini, the Sienese, was engineer as well as
architect and author of valuable architectural treatises.   They pre-
pared the way for the loss of individualism and the tyranny of formulas

[1] It is now a matter of dispute whether this is by Fra Giocondo, but it represents
in any case his artistic feeling.

that was to characterize the second half of the sixteenth century, and yet, by their broad acquaintance with the ancient monuments, they were among the most powerful agents in introducing the harmony of the Golden Age. During these decades since 1450 the Lombard school had been displaying its decorative exuberance in the Certosa at Pavia, in Cremona and elsewhere both in marble and terracotta, and the Lombardi family had been establishing the Venetian school.

Meanwhile, Manetti, Buggiano, Giuliano da Majano and Cronaca were carrying on the traditions of Brunelleschi; and Bernardo Rossellino was copying Alberti. The Neapolitans were seeing the erection of the first structure with complete decorative reproduction of the ancient orders in the triumphal arch of King Alfonso, an original yet accurately classical work (Fig. 572). The tentative and unorganic phase was almost closed. Laurana was preparing in the palace at Urbino the advent of the Golden Age under Bramante. Churches on many plans were being devised: Greek cross, Latin cross, quatrefoils, concentric. The Roman pier was taking its place beside the Tuscan column as a support. The type of the Colosseum was being adopted. Order was being evolved out of individual strivings. For a moment there was a struggle between the Tuscan delicacy of proportions in interior supports and the Roman scheme of heavy piers. Giuliano da Majano developed the former at the cathedral of Faenza, and, with the collaboration of San Gallo, in the church of Loreto. But the Roman type, as heralded by Alberti and developed by Bramante, prevailed as early as 1500.

Bramante was an Umbrian, from near Urbino, who became the

572—Triumphal arch, of Naples. (From photo.)

recognized leader of the architectural movement shortly after 1500, establishing at the same time the supremacy of Rome. Like some famous painters he had several "manners." Of these we may, without hairsplitting, distinguish two: the Lombard and the Roman. The typical examples of his earlier Lombard manner are the church at Abbiategrasso, the choir and dome of Santa Maria delle Grazie and the church and sacristy of San Satiro at Milan; those of his later Roman manner are the tempietto of S. Pietro in Montorio, the cloister of Santa Maria della Pace and the work at St. Peter's and the Vatican. He showed as much versatility as Brunelleschi, and was in some respects a greater artist. He borrowed in his Lombard manner from the rich Northern repertoire of Romanesque architectural motifs. Not until he left Lombardy for Rome in 1499 did he give himself up entirely to the spell of the antique and enter on his classic manner. Through his plans for the new basilica of St. Peter and the Vatican palace Bramante became the most famous Italian architect, and his influence was felt over a far larger area than that of any of his predecessors. His style was as grandiose and noble as Alberti's and more elastic, logical and harmonious. At his death in 1514 the Golden Age was in full activity. The San Gallos, Baldassare Peruzzi, Andrea Sansovino, Raphael, were the most prominent architects, to be followed by Giulio Romano, Genga, Baccio d'Agnolo, Sanmicheli, Jacopo Sansovino and Michelangelo. The monuments at this time are too numerous to specify even briefly. This brings us to the middle of the sixteenth century. Two forms of decoration are emphasized: the pictorial; in arabesques, grotesques or friezes; in figured compositions of the grand style; in *sgraffito* or in monochrome. The monumental frescoes of the Middle Ages were revived. Even the exteriors of private houses are often painted. In the second place there is a neglect of the low-relief decoration so universal in the previous age and a development of high relief and work in the round such as statues in niches or on pedestals and gables. The unit of measurement was enlarged: everything was larger and yet often seemed smaller, a peculiarity that was to be developed in the following period.

With the closing years of Michelangelo's (1475–1564) long life two currents are started: The scientific and the fantastic. Hardly any architect, however scientific, is free from an infusion of *barocco;* no fantastic architect but appears to bow to the scientific creed.

Vignola heads the scientists; Giacomo della Porta the baroccoists. Then Giorgio Vasari is on the side of the purists, while Alessi, Ammanati and Tibaldi adopt the heavier and illogical Barocco forms. Finally Palladio (1508–1580) appears to bring back an antique simplicity by the establishment of canons of proportions and the elimination of nearly every element not based on classic examples, except where he returns to models of the earlier Renaissance—to Sansovino and even to Alberti. He had greater influence than any man since Bramante, in every branch of architecture, and led in popularizing the later Renaissance beyond Italy, though we must not forget the splendid work of Sanmicheli along similar lines. While his influence was encouraging to the grand style, nothing better shows the decadence in the finer qualities of art than the absence of good decoration, the crudeness of detail and the use of inferior materials. At the same time the attempt to establish mechanical rules for proportions and details tended to kill individual genius and freedom and gave a coldness and uniformity to the majority of buildings. They hardly ever excite our enthusiasm. Occasionally, as in the colonnades of the Square of St. Peter, there is a grand sweep of lines and an unmechanical use of perspective effects.

The cast-iron formalism of the scientists seems to have been responsible for the aberrations of the Barocco leaders. They were mostly Lombards. We have seen how irrepressible was the Lombard exuberance in the early and middle Renaissance: the Barocco outbreak was but another case of the Certosa façade, in the style of the period. Fontana, Giacomo della Porta, Maderna and Borromini, its principal leaders, were all Lombards, and while it is common to ascribe their extravagances to the influence of Michelangelo, it is more logical to call them mainly temperamental. The historians of architecture may well owe them an undying grudge not only for what they created but for what they destroyed. The colossal tastelessness of Saint John Lateran by Borromini involved the destruction of the medieval basilica. Fontana's tearing down of one of the most extensive and well-preserved works of Roman architecture, the Septizonium, was merely to use its material in his palaces and churches. *Anathema sit.*

CHAPTER II

A FTER this brief sketch of the men, we will now examine the monuments of the Italian Renaissance. This can be done more clearly in three groups of buildings: the private palaces, the churches, and the monastic and civil buildings of different kinds. The palaces ought to be studied first because they form a compact group and because they do not break with the past as church architecture did, but continue long established medieval traditions.

Every large Italian city with a distinct history had evolved a special type of palace during the two centuries preceding the Renaissance. It would be superfluous to do more than examine the main types. These seem to me to have centered mainly at Florence, Rome, Bologna, Venice and Genoa.

In speaking of Brunelleschi his two palaces in Florence have already been described on pp. 100, 102, and their connection with Gothic palaces of the Palazzo Vecchio type was noted.

573—Riccardi palace, Florence. (From photo.;

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If Michelozzo contributed nothing to church architecture, he certainly perfected the type of Florentine palace in that which he built soon after 1430 for the Medici, now called the Riccardi palace. It was (Fig. 573) on a larger scale than Brunelleschi's Palazzo Quaratesi,

574—Detail from Chapel of Riccardi palace, Florence. (From Geymüller.)

and in style was midway between its delicate graceful charm and the ruggedness of the Pitti. It is, of course, one of the most famous buildings in the world and considered to be the first if not the greatest embodiment of the passage from the type of the medieval fortified house to the modern palatial city residence. It is about 300 feet long and 75 feet high. Each of its three stories varies in the treatment of

575—Florence, Riccardi palace: elevation of the court. (From Geymüller.)

its stonework in a way that suggests how keen a sense of surface and tone Michelozzo must have had: the passage from the rugged bossing of the lower story, through the strongly emphasized blocks of the second story, to the smoothly finished surface of the upper story is thoroughly satisfying and seems to be dictated by constructive and æsthetic logic rather than by a desire for variety. The windows are of the two-light type, but simpler than those at the Quaratesi. Per-

576—Court of Riccardi palace, Florence. (From photo.)
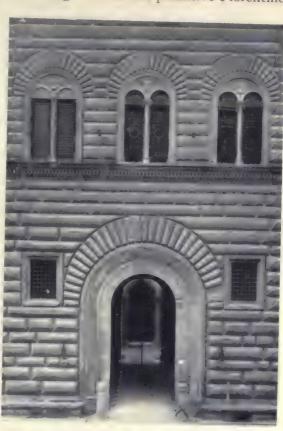
haps the greatest stroke of genius is the main cornice. In its bold projection and memberment and in the group of mouldings that connect the consoles with the wall it is perfect in its effect upon the façade. From Vasari's praise of the interior planning for both beauty and convenience, we may conclude that Michelozzo in this particular also surpassed Brunelleschi. The decoration of the chapel is pure and exquisite, the ceilings rich and the pavement of mosaic *intarsia* (Fig. 574). Certainly the square inner court is as symmetrical as the exterior and, of course, less severe. The upper stories project over an

arcade composed of four Corinthian columns supporting five groined cross-vaults.   The archivolts are Ionic and above them are two parallel lines of string-courses giving the effect of a wide frieze to the wall space between them.   Above are the famous marble medallions in low relief by Donatello.   Then, a story with two-light windows and above a covered loggia with Ionic columns supporting an architrave. This is shown in Fig. 575, which reproduces its delicate polychromy; while Fig. 576 gives the effect of the arcade.   Another cortile due to him is that of the Palazzo Vecchio.

Owing to its ampler spacing and greater height the Strozzi Palace is generally considered the crowning work of this primitive Florentine type.   It was built by Benedetto da Majano and Il Cronaca between 1489 and 1533. The work is the same on all the stories, giving more unity and less picturesqueness as compared to the Riccardi, which it otherwise so closely resembles. It is rusticated throughout, but the bossing is far more delicate than at the Pitti or Riccardi and the horizontal rather than the vertical lines are accentuated.   The fine handling is well brought out in Fig. 577.

A charming and unconventional variation is given in the Guadagni palace built at the same time (c. 1470-80) by Il Cronaca (Fig. 578). It

577—Centre of façade, Strozzi palace, Florence. (From photo.)

breaks entirely away from every remnant of the feudal type. The open loggia, which had previously been used only in the court, now crowns the façade and adds enormously to its picturesqueness.   The windows

are of the older one-light type.   Another unusual feature is the use
of stucco on the second and third floors, covered with decorating
designs in *sgraffito* (black outlines on white ground).   It is interesting
to compare this with the slightly earlier use of polychromy in the
court of the Piccolomini palace at Siena.

· In these works there has been no use of the classical orders to frame
and member the building.   This novelty was introduced by Leon

578—Palazzo Guadagni, Florence.   (From photo.)

Battista Alberti (1404–1472) when he built the Rucellai palace in 1460.
He created here a distinctly new type, which revolutionized this section
of Renaissance design, and was adopted in one form or another by all
subsequent schools.   Until then one might call the palace scheme almost
strictly medieval.   It now enters systematically into the classic
sphere.   The keynote of the new design is the introduction as the
dominant decorative feature of the façade, of the classic orders in
the form of pilasters supporting entablatures and framing the windows.

The prototype was evidently Roman—the Colosseum, theatre of Mar-
cellus or Tabularium (Fig. 579).   It is one of the ways in which Alberti
most successfully estab-
lished his classic reform.
The frieze of the en-
tablature gave an op-
portunity for classic sur-
face decoration in low
relief—a feature which
was attaining to great
popularity. The façade
was perfectly regular in
its arrangement of win-
dows and pilasters and
heavy rustication was
abandoned. The effect
was one of greater deli-
cacy and less pictur-
esqueness: the loss of
force is emphasized by
the smaller projection of
the crowning cornice.
Another æsthetic defect

579—Rucellai palace, Florence. (From photo.)
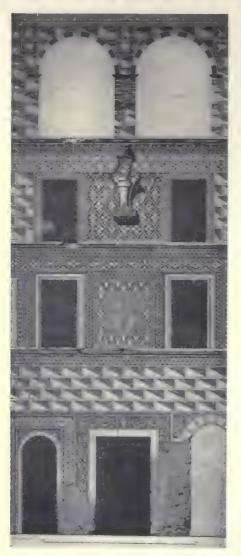
is the combination in the windows of the two-light arcaded form with
the architrave—a first
step toward the plain flat-
topped window that was
to come into general use
in the middle period.

The sculptor-architect
Bernardo Rossellino at
once reproduced this crea-
tion of Alberti in a palace
which he built for the
Piccolomini family at Pi-
enza. He did this with
such exactness that they
are almost duplicates. He
went a little further in

580—Cornice of Palazzo Piccolomini, Pienza. (From
photo.)

dividing the windows by cross-mullions—a grave defect. The detail of it in Fig. 580 gives the type of cornice used to crown these palaces. At the same time, in the façade of the court at Pienza he has given us a wonderfully complete and beautiful example of polychromatic wall decoration, which was probably introduced by him to the Florentine school. In Fig. 581 is a characteristic piece of polychromatic design by him, also at Pienza.

Since we are on the subject of the various forms of windows introduced into palace architecture, it was Baccio d'Agnolo, also a Florentine of the close of the fifteenth century, who first used in the Bartolini palace the windows framed by pilasters supporting an entablature surmounted by a gable. This form of opening had been hitherto associated with religious architecture. It soon entered permanently into the stock-in-trade of civil buildings.

We have now reached the moment when Rome was to transform even more thoroughly the style of palatial homes.

There is a notable early palace in Rome, the Palazzo di Venezia, a unique battlemented structure of military sternness, which was the first piece of important Renaissance work in the city. With

581—*Sgraffito* façade, Palazzo Pretorio, Pienza.
(From Raschdorf.)

its vast expanse of battlements it corresponds in Rome to the Pitti. Its exterior is plain and unarticulated: what is decidedly original is the style of its two courts (Fig. 582). Instead of the arcades with slender columns, we see for the first time in the larger court the grouped pier

imitated from the Colosseum and other Roman buildings. This introduced a new element which was to revolutionize forms and proportions. It took place in 1455-7 and yet, when the Cancelleria palace was built thirty years after, the old Tuscan colonnaded arcade was adhered to. Several features must be noted in both the courts. In the larger, there is the unique open gallery on the second story, equal in dimensions to the arcade below, and giving quite a new effect in court-design. On the other hand there is a curious medievalism

582—Palazzo di Venezia, Rome. (From photo.)

in the octagonal piers of the smaller court, which is a feature continued by the Roman school. Two other novelties are: the use of all three orders, in place of the Tuscan loyalty to the Corinthian and composite; and the adoption of the simple flat-topped window in place of the two-light round-arched opening. We have reached pure classicism at last (Fig. 583).

The third stage of development, when Rome was to wrest the sceptre entirely from Florence, foreshadowed in this Palazzo di Venezia, while it was most brilliantly embodied in the personality of Bramante,

was initiated by his master Luciano di Laurana, especially in his masterpiece, the Ducal Palace at Urbino (Marches), where Luciano was assisted by Baccio Pontelli (1468).

This palace was considered the most remarkable of its time. It certainly stands alone in its embodiment of the passage from a medieval fortress to a modern palace. Its corner towers are as old as the crusades in their type. The main façade is imposing not only from its height but for the extremely original feature of its central projection in four stories. In a way this recalls the several storied porches of some Lombard Romanesque church façades, or the triumphal archway of King Alfonso at Naples. We cannot say how far the art-loving Duke Frederic, a dilettante in architecture, may have dictated the scheme. The palace contained 250 rooms, 660 doors and windows and 40 artistic fireplaces. Every part of the interior was covered with a decoration in relief that was the most exquisite of its time — doorways, chimney-pieces, cornices, panels, formed part of a uniform and restrained rich scheme. Some of the artists

583 —Main court of Palazzo di Venezia, Rome. (From photo.)

584 — Detail of doorway, Ducal palace, Urbino. (From photo.)

were Florentines, others were Lombards, others Umbrians. In
the treatment of surfaces there is a softness and a feeling for grada-
tions that is quite absent in the Florentine work of Brunelleschi and
his successors. The Florentines were always more successful in line
than in surface work and color (Fig. 584).

The central court has rather the dimensions of a cloister than
of the modest four-columned Florentine palace court. It preserves
the slender Florentine column, adopts Alberti's delicate pilasters
on the second story, but substitutes for the Florential windows the

585—Cancelleria palace, Rome.. (From photo.)

square-headed windows with cross-mullions, which we have noted
at the Palazzo di Venezia as a Roman invention.

The next stage is marked by the Cancelleria palace in Rome,
built in about 1485: not by Bramante, to whom it has, until recently,
been erroneously attributed, but before he came to Rome by an archi-
tect who was a pupil of Alberti (Fig. 585). Like all the Roman
palaces it is on a far larger scale than the Florentine. Its flat façade
varies from Alberti's type in the almost imperceptible wing-pro-
jections, in the coupling of the pilasters between the windows, and
in the design of the undivided round-arched windows which is
copied almost exactly from the openings in the Roman city gate at
Verona called Porta dei Borsari (Fig. 586). They show how far progress
had been made toward purely classical design. The reader will also

586   Window of Cancelleria palace, Rome. (From photo.)

note the heavy podium introduced under the windows, the absence of pilasters in the lower story and the substitution of flat for round topped windows in the upper story. An unusual feature of the large court is the superposition of two stories of arcades of equal size with slender columns; a development of the Tuscan manner, without Roman admixture. It is an immediate evolution of the Urbino type (Fig. 587).

At this point the architects who were working in Rome entirely abandoned the Florentine style and worked on the basis of the scheme outlined in the Palazzo

587   Court of Cancelleria palace, Rome.   (From photo.)

di Venezia. It was a simple classic style, rather heavy but dignified; devoid of delicate ornamentation and relying on strong contrasts of light and shade. The first of these and, considering its small size and the necessary irregularity of its plan, the most original and successful, is the Palazzo Massimi alle Colonne, by Baldassare Peruzzi (Fig. 588). It now stands meaninglessly on a wide street but until a few years ago it followed the curved line of a narrow thoroughfare. Its open vestibule with six grouped Doric

588—Palazzo Massimi, Rome. (From photo.)

columns supporting an architrave is, I think, unique, and certainly effective. The typical Roman square-topped windows on a heavy podium are surmounted by two rows of small openings which are the only inartistic element in the façade. The Hellenic flavor of door and architrave is emphasized as soon as one passes into the cortile. Its two stories are both architraved and the order is Doric-Tuscan below and Ionic above. There is a Hellenic felicity in the proportions and simplicity (Fig. 589). I do not know of a more satisfying piece of Renais-

589—Court of Palazzo Massimi, Rome. (From photo.)

sance design. The tunnel vault of the passageway, so thoroughly Roman, does not strike a discordant note. We must believe that Peruzzi was not responsible for the oblong openings made for lighting purposes in the frieze of the entablature of the lower story. The

590—Court of Palazzo Farnese, Rome. (From photo.)

decorations of the loggia are just as perfect in line and execution. The main hall of the palace is a characteristic instance of so many halls of the Golden Age.

Quite a different effect is aimed at in the largest of Roman palaces,

the Palazzo Farnese, designed by Antonio da San Gallo, the younger, and completed by Michelangelo. It is of the severest and most Roman travertine type, without a trace of the Hellenism of the Massimi palace. The framing orders are definitely abandoned and a heavy rustication marks the corner. The windows are set closer

together than in the Florentine style. And yet, there are certain traits that bespeak the Florentine nationality of both architects: the superbly projecting cornice designed by Michelangelo, which recalls those of the Riccardi and Strozzi palaces, and the use of windows with triangular and curved gables. In the great cortile we can see plainly the derivation from the Colosseum and the influence of the Palazzo di Venezia (Fig. 590). The three stories follow the three orders. The view given in Fig. 591 shows one of the finest features, the long vaulted passage leading from the street to the court. It should be noted

591 —Vestibule of Palazzo Farnese, Rome. (From photo.)

that the loggia in the corresponding position on the opposite side, opening on the garden, was an inharmonious addition by Giacomo della Porta.

To illustrate how this grandiose simplicity was soon vitiated let me give here an illustration in Fig. 592 of the Palazzo Spada, which was built before the Farnese palace was completed. Both its façade and its cortile are a riot of flamboyant stuccoed ornamentation on a grandiose scale: statues in niches, heraldic shields held by giants,

decorative frames, memorial inscribed tablets. The architecture
is overrun and effaced by the noxious invader: a prelude to the here-
sies of the Barocco age.

During these seventy years or more (1485–1560), architects
had been called upon to build palaces of a somewhat different type
in urban grounds away
from the main streets.
Of these villa - palaces,
where greater freedom was
allowable, the most charm-
ing was the one known
as the Farnesina Palace
to all lovers of Raphael:
whether built by him or
by Baldassare Peruzzi be-
fore 1512, it gives with
the slenderest means in
the way of relief or orna-
ment, an effect of great
delicacy. In plan a cer-
tain picturesqueness is
gained by the wings that
project at right angles.
It was the model followed
on a larger scale over a

592—Court of Palazzo Spada, Rome. (From photo.)

century later in the Barberini palace, and before that in many less
conspicuous buildings.

The next step leads us to a study of the types of palace developed
in the northern provinces.

A special formula is characteristic of Bologna and received its best
Renaissance interpretation between c. 1480 and 1525. Bologna was
a city of arcaded streets, and its houses generally overhang an
arcade supported by columns. Then, also, it often used brick as con-
structive material with terracotta, of course, for decorative work.
Consequently it is closely affiliated with Lombardy; whereas both the
Tuscan and Roman Schools used stonework almost exclusively. These
two local characteristics gave a very special air to its palaces. The
Palazzo Bevilacqua (formerly Sanuti), built from 1482 to 1484, is an
exception similar to the famous Palazzo dei Diamanti at Ferrara (Fig.

593).   Its façade is a good example of the diamond-finished arrised
rustication that was much less popular than the irregular style.   The
combination of architraved windows on the lower story with double
round-headed windows on the second floor shows the influence of both
Tuscan and Roman schools, while the rich sculptured details and the
pensil capital with the absence of the central colonnette are Lombard
traits.   The cortile, however, which is beautifully proportioned and of

593—Palazzo Bevilacqua, Bologna.   (From photo.)

great decorative charm, is unusual both in its size and in the successful
use of two arcades in the gallery above each one of the arcades below
(compare the Fava palace).   The Palazzo Pallavicini (formerly
Felicini), dating from 1497, is more typical of Bologna with its open
arcades and with the scale ornament on the extrados of its windows.
Some of these Bolognese windows, especially those of the Florentine
type, are very successful examples of terracotta work, for instance
those in the Palazzo Fava.   The second story windows of the Bevilacqua
palace are exquisite in proportions and delicacy of detail (Fig. 594).

The view of Palazzo Fibbia in Fig. 595 gives the normal Bolognese type of brick and terracotta arcaded façade.

The palaces of Lombardy have less unity, but have often a superb beauty. The Palazzo dei Diamanti at Ferrara is the finest example of carefully finished faceted rustication. Also, the scheme of terracotta surface decoration was developed to extremes. The side of the court

594—Window of Palazzo Bevilacqua, Bologna.   (From photo.)

of Palazzo Stanga, in Fig. 596, is a perfect instance of arcaded work with a tapestry decoration in terracotta of the entire surface. It is a transitional work. The lower section with its medallions savors of the late fifteenth century, while the caryatids under the roof cornice are in mid Sixteenth century taste. Compare with the work in the cloisters of the Certosa at Pavia.

There is plenty of local color in the earliest Renaissance at Venice. The political antagonism of Florence and Venice during the second half of the fifteenth century may, as Anderson suggests, have militated against an early acceptance of the new style by Venice, to whom it came, in a roundabout way, through Lombardy, and in particular by the agency of a family of Lombard architects, the Lombardi: Pietro Lombardo built S. Maria dei Miracoli from 1480 to 1489 and the Vendramini palace after 1481. Martino Lom-

595—Palazzo Fibbia, Bologna. (From Schütz.)

bardo designed in 1483 the Scuola di San Marco. To one of them is attributed the Corner-Spinelli palace in 1480.

It is refreshing to see how the Lombardi respected Venetian traditions in these palaces. There could be no greater contrast to the feudal palaces of Florence. To be sure there was for a moment a concession made in adopting rustication for the lower story of the Corner-Spinelli palace. Otherwise, as in the Gothic type, nearly the

entire space is taken up with large two-light windows with an oculus
or rondel in the tympanum, the whole design being an evident modi-
fication of Gothic.   The old division into a central section and two
wings is maintained.   The Vendramin palace, the most beautiful
of the Lombardi creations (1481), shows (Fig. 597) clearer classic char-

596—Court of Palazzo Stanga, Cremona.   (From photo.)

acter in the use of the orders for articulating the façade. It was done in
a way derived perhaps from Lombardy but quite unknown to the
Florentine, Roman, or Bolognese artists, by columns in place of
pilasters. The elimination of the third story balconies and the
conversion of the second story balconies so as to produce an effect

of a continuous podium, is a further concession to classicism (Fig. 598.)

Early in the sixteenth century the changes introduced into palace architecture in Rome found their echo in Venice in such works as the Palazzo Contarini alle Figure, which has the undivided windows crowned by gables or enclosed in rectangles of the Roman type but of Venetian proportions.   The large temple gables with its five columns supporting an architrave which forms the centre of the design is a

597—Palazzo Vendramin Calergi, Venice, by Pietro Lombardo.   (From photo.)

clever Venetian adaptation, and the group of four windows surmounting it on the third floor is almost Byzantine.   The Venetian idea was never submerged.

Three other artists produced works of importance in Venice: Sanmicheli, Sansovino and Palladio.

The inner façade of the Doge's palace, with the Giant's staircase, has always been considered one of the marvels of Italian decorative art.   It stands in the same class as the Certosa of Pavia, and is even

598—Window of Palazzo Vendramin, Venice.   (From photo.)

599—North façade of Doge's palace, Venice.   (From photo.)

less representative of the real Renaissance. Of the two sections the
northern or small façade on the left of the staircase built by Guglielmo
Bergamasco is, to be sure, a fairly consistent piece of Renaissance

600—Main façade of Court at Giant's Stairway, Doge's palace, Venice. (From Schütz.)
By Rizzo and Scarpagnino.

work with its gabled fenestration on the second story (Fig. 599). In
the higher east façade, begun (Fig. 600) earlier by Antonio Rizzo, the
design was conditioned by the pre-existing interior. There is little

that is characteristic in the details of the lower arcade. It seems quite likely that the use of pointed arches in the second story was not due to stylistic leanings to the vanishing Gothic forms, but entirely to the necessity of obtaining a greater height for the openings of the gallery. The group of shafts forming the piers is extremely felicitous. The peculiar asymmetry of fenestration and decoration above this story is due to the internal arrangements, and often gives proportions that are not elsewhere met with. Pietro Lombardo and Scarpagnino are responsible for the rich ornamentation of panels and frieze. The curious feature of curved gables over the windows resting on an unbroken architrave is vicious. One feels the entire work to embody the tentative phase of the north-eastern school. Fig. 601 gives some of the more purely classic detail.

601—Pilasters at main stairway, Doge's palace, Venice. (From Schütz.)

The innate military character of Sanmicheli's (1484–1559) style shows itself even in his palaces. This is not apparent in Venice, which was never willing to allow that note to be sounded along its canals except in such natural situations as the gate of the arsenal, but appears in Verona, his birthplace, which is as redolent of his genius as Vicenza is
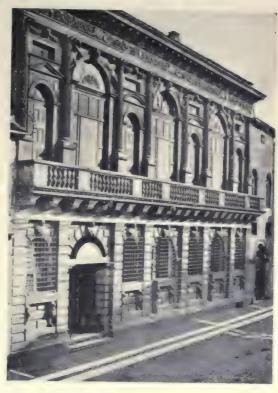
602—Palazzo Pompei alla Vittoria, Verona. (From photo.)

with that of Palladio, whom he immediately preceded. It is curious that Antonio da San Gallo and Sanmicheli, among the few men who were architects and engineers from their boyhood, were also the great representatives of rugged strength as distinguished from pictorial charm and beauty of detail. In his suppression of unstructural and unessential details Sanmicheli warred against the new Barocco school. One of his most interesting developments was the combination of engaged columns and pilasters with rustication. In the Palazzo Pompei at Verona in 1530 the rustication of the lower story is in the old style (Fig. 602), unmarked by a framing

603—Palazzo Bevilacqua, Verona. (From photo.)

order; only the second story has the columns and entablature, and this on a large scale that heralds the work of Palladio. But soon after his Bevilacqua palace has rusticated pilasters (Fig. 603) with entablature in the lower story. Another feature of modern architecture

604—Porta Stuppa (Palio), Verona, outer face. (From photo.)

was thus introduced; whether felicitous or not. In the Porta del Palio (Fig. 604), the most successful of his city gates, the rustication is extended to the columns on the interior façade, as well as to the pilasters. The architect's love for Doric is quite consistent with his whole scheme. He used great license in the proportions of the order, lengthening the shafts to eight and a half diameters to counteract the effect of the horizontal rustication and reducing the capitals to insignificance. His peculiar *forte* was a felicity of

604A—L. Porta Stuppa (Palio), Verona, inner face. (From photo.)

proportion which redeemed his grandiose simplicity from any heaviness. All these Veronese works—both palaces and gates—show a love for long, horizontal stretches. The palaces have but two stories, a basement and a *piano nobile*, for the mezzanine in the Palazzo Bevilacqua is immaterial to the design. But when Sanmicheli designed the Grimani palace (Fig. 605) for Venice, he was obliged to conform largely to Venetian standards, and while he eliminated the medieval mullions and tracery and the remnants of traditional surface decoration, he conformed to the lofty propor-

605—Palazzo Grimani, Venice.   (From photo.)

tions and the triple division that had been the constant rule.   The
coupling of the columns and pilasters is the principal means for marking
the division as it had been in the Vendramin palace (see p. 133), but it is
also marked by the frankly expressed square-headed mezzanine win-
dows above each main story, a feature adopted from the type of the
Roman palace developed by his contemporary, Peruzzi.   Of course
the Grimani palace is a highly finished, symmetrical product, the
fine flower of the ar-
tist's sense of rhythm,
but perhaps the
simpler and earlier
Palazzo Pompei at
Verona is a more un-
fettered expression of
his genius.   Here he
reduces to a minimum
the use of mouldings,
cornices, friezes, and
other decorative fea-
tures, while in the
Venetian palace he ap-
pears to have made
concessions in this par-
ticular to the local
taste.   On the other
hand, in the Palazzo
Canossa at Verona he
adhered to the older
Cancelleria type of
coupled pilasters (Fig.
606).

606—Palazzo Canossa, Verona.   (From photo.)

Quite a different note was struck at about the same time by Jacopo
Sansovino.   Perhaps the fact that he was a sculptor and a Tuscan
made him enter more thoroughly into the spirit of the place when he
settled in Venice in 1527, and so made him a popular favorite, but he
showed neither the originality nor the sense of proportion of San-
micheli.   His famous palace, the Cornaro di Ca' Grande, shows lack
of unity (Fig. 607) between the rusticated lower story, where the triple
division is observed, and the two upper stories, where the lack of this

division breeds a monotony with which Venice is unfamiliar, common
as it is elsewhere.   Here also the abandonment of mullions and tracery
is consecrated into a custom.   The use of different orders in the dif-

607—Palazzo Cornaro di Ca' Grande.   (From photo.)

ferent stories is another imported peculiarity.   It is a question whether
Sansovino borrowed from Sanmicheli his use of rustication; if so, his
stiff and lifeless use of it in the Mint Building (La Zecca) shows that he
did not understand it.   In order to appreciate him at his best we must

study a building of quite opposite character, the highly decorative
Library (Libreria Vecchia), which will be discussed among public
buildings.   It is at this point that Palladio enters upon the scene and
absorbs what was best in both Sanmicheli and Sansovino.

The Palladian type is identified with Palladio's birthplace, Vicenza,
in the north-east.   It is inter-
esting that while he was liber-
ally patronized in Venice for
the erection of churches (see
p. 173), the Venetians decided
that his style of palace was
unsuited to their require-
ments, especially in economy
of space, convenience of in-
ternal arrangement, and a re-
spect for local peculiarities.
The Palazzo Tiene (1556),
Palazzo Chierigati, and Pa-
lazzo Valmarana offer differ-
ent phases of his style.   In the
Palazzo Valmarana he uses
the colossal order for which
he became so famous.   The
pilasters stand on an extreme-
ly high podium and cover the
entire height of the building
to the main cornice.   Columns
in place of pilasters are used
(Fig. 608) in the Palazzo del
Consiglio (Loggia Bernarda),
where the lower story is open.
This framing of the two prin-
cipal stories by a single order

608 — Loggia   Bernarda   (Former   Post-Office),
Vicenza.   (From photo.)

was an old device of Alberti in the façade of Sant' Andrea at Man-
tua, and its revival by Palladio in private architecture became very
popular.   In the Palazzo Tiene the lower story is heavily rusticated
and without order.   The second story has Corinthian pilasters on a
parapet base.   The usual attic surmounts the cornice and there is a
suggestion of wings with coupled pilasters.   A similar scheme is

609   Palazzo Barbarano, Vicenza.   (From Schütz.)

followed in the court, where the proportions are infelicitous and heavy. The Barbarano (Fig. 609) and Chierigati palaces are of a third variety, with a separate order for each of the two stories, and they are the most symmetric, most decorative, and harmonious of his compositions. The open wings and lower story of the Chierigati (Fig. 610) with Doric and Ionic orders are especially good. Of course the use of brick in the greater part of these

610—Palazzo Chierigati, Vicenza.   (From photo.)

structures and of a coating of stucco to imitate stone work, including the heavy rustication, not only gives a coarseness to the details but carries as a consequence rapid surface deterioration.   Palladio's emphasis on grandeur and correctness of proportions is partly responsible for the neglect of ornament and of sincerity in construction in a great deal of contemporary and later work.   He caters at times to the Barocco spirit, notwithstanding his classicism.   This shows in the Michelangelesque figures perched on the gables of the Chierigati

611—Palazzo Rezzonico, Venice.   (From Schütz.)

façade and in the windows at the Tiene palace.   Their heavily bonded columns are a typical abortion.

Evidently, then, Palladio's style of palace architecture differed from those of most of the earlier masters in not limiting itself to any particular formula of design, but rather to a simplification of style, a studied reproduction of the antique, and a formula of rules of proportions.   They were embodied in his popular book, and it was after its publication in 1570 that his style became popular not only in Italy but in Europe and finally in England.

Though Venice showed itself rebellious to Palladio's influence, the time came when Longhena, in the Rezzonico and Pesaro palaces, last of (Fig. 611) great Venetian palaces, showed himself decidedly Palladian, though he was Sansovinesque in his decoration. A personal peculiarity that is decidedly infelicitous is the substitution of free-standing

612—Court of Palazzo Marini (Municipio), Milan.   (From photo.)

for engaged columns. This, together with the excessive recessing of the windows, produces an exaggerated contrast of lights and shadows. This same effect is aimed at in the excessive bossing of the lower story.

To complete the group of strikingly different local types the rival of Venice must be studied. Genoa had never shone as an artistic centre. Probably no city of her size in Italy possessed so few architectural and artistic masterpieces.

The Genoese type of palace did not originate until quite late and was largely created by a follower of Michelangelo, Galeazzo Alessi, who came to Genoa in 1549. The narrow streets and steep rises of the city gave no chance for broad effects, and the façades were necessarily narrow in most cases. Alessi's work may be taken to be extremely successful in producing in small spaces an effect of grandeur. Of course as one of the founders of the Barocco he dealt in large units. He was less successful in his façades than in his courts. The Genoese palaces are noted for their vestibules, courts, and staircases, which were developed through the seventeenth century. Alessi's details are generally coarse. A view of the court of his Palazzo Marini at Mi-

613—Palazzo Pallavicini delle Peschiere, Genoa. (From photo.)

lan (1558), in Fig. 612, shows a richer effect than in his Genoese work. It is certainly one of the most spectacular pieces of Italian decorative composition. The caryatids are remarkably good and have an Egyptian cast. The solid piers of the second story over the widely coupled columns below are vicious. His most successful Genoese façade was one where he had plenty of space—the Cambiaso palace, where he used a broad and heavy rustication, great simplicity, and decorated his strongly projecting string-course merely with the Greek mæander. His abandonment of the orders emphasized this as a sort of return to the primitive Pitti type. But he still retains the orders of framing pilasters in the Villa Pallavicini outside the city (Fig. 613), the most charming and delicate of his works. One of the best staircases and courts, shown in Fig. 614, is in the Palazzo Filippo Durazzo, in Alessi's style,

614—Stairway and court of Durazzo palace, Genoa.   (From photo.)

but carried out with greater simplicity.   But this brings us to a period
much later than the one we are now concerned with.

As we sum up impressions it would seem as if in many ways local
types of private residences were predetermined and traditional.   In
Venice there was less space for central courts about which the rooms

could be grouped; hence, the three sections—a centre and two wings—running from front to rear, and also the greater elevation. The type set in the Byzantine period continued to the close of the Renaissance. The scheme of continuous open arcades flanking the streets in Bologna, under which the people could walk for miles, protected from the weather, was also something that foreign architects could not uproot, though they did modify it. The difference in available materials must be taken into account. The abundance of stone quarries in Florence and Umbria gave an opportunity for clear profiles and delicate carving with which the bricks and terracotta of Lombardy and Emilia could not compete. Hence the temptation to a free use of stucco; also the tendency in these regions to give over-richness where delicacy was impossible. One is apt to compare façades, for example: one hardly stops to remember that the Venetian palace has usually but the single elevation,

615 — Gallery of Palazzo del Tè, Mantua.   (From photo.)

whereas the larger Roman palaces have four façades besides the cortile elevations.

There was also a class of Pleasure Houses, quite characteristic of the luxury-loving lords and ladies of the Renaissance, consisting of banqueting and lounging halls and porticoes opening on gardens and belvederes, and planned without living or sleeping rooms. One of the most perfectly planned and decorated was that built by Giulio Romano at Mantua for the ducal family, after 1525, and known as the Palazzo del Tè (Fig. 615). Of the larger halls in the centre of each side of the hollow square, the one at the entrance is a reminiscence of Rome, being imitated from the vestibule of the Farnese palace. Opposite it

and opening on the garden is the most graceful and exquisite of the halls. Its façade may be the model from which Palladio thirty years later borrowed his scheme for the basilica at Vicenza, in the unusual feature of a series of rectangular piers used as antæ for columns on a line parallel with the façade.

Of later types the most famous is the rotonda (Fig. 616) called Villa Capra, by Palladio, near Vicenza. It has pantheon-like façades built against the four ends of a square within which is the

616—Villa called La Rotonda, by Palladio, near Vicenza. (From Schütz.)

large circular hall. The scheme was quite frequently copied even as far as England. It is the embodiment of the formalism of the later sixteenth century as contrasted with the easy-going geniality of the early sixteenth and the free joyousness of the fifteenth century. If there were space to describe them it would be interesting to compare the many types of such informal buildings. Of course they have suffered more than any other class of Renaissance works. It would be necessary to bring the original architects' drawings to our aid to show how artists gave rein to their fancy. Many schemes were extremely elaborate. It is not generally realized that the plans of the French architects of the sixteenth century for royal and princely palaces were largely copies of destroyed Italian originals. The Louvre and the proposed Whitehall were no exceptions. As an Italian type of special interest I cannot pass by the famous Caprarola palace, by Vignola, built after 1550.

The name of Vignola is even more famous as a scientific writer on architecture than as a practical architect. He was Palladio's rival as creator of a "system," which he elaborated in his *I cinque Ordini d'Architettura*. But he was far from having Palladian simplicity and is responsible for many of the sins of Barocco architecture. The palace of Caprarola, not far from Viterbo, is unusual in plan. It is an immense pentagon on the exterior, with a central circular court. This scheme has been criticised as fantastic, but this seems unfair, because

it is merely an adaptation of a common military plan—merely a survival like the battlements in the Tudor style (Fig. 617).

There is an original sketch by Vignola himself, which shows how the palace fortress was arranged in a formal setting. It was on quite a steep incline, and the approach had considerable spectacular effectiveness with its monumental stairways. Each side of the pentagon

617—Plan of Caprarola palace.

measured 130 feet, and the colonnaded court had a diameter of 65 feet. The building was surrounded by an esplanade-basement with simulated bastions and was reached finally by a covered staircase. The style of the two stories is simple and essentially Roman. The rustication of the corner pilasters on the second story helps to bring the design together. The lowest unit in the scheme is a triple Doric portico which dominates a circular court surrounded by a ramp which leads to a central portal. From this a double rectangular ramp diverges to scale the lower sloping basement, ending in the third portal flanked by three

windows on each side by which one passes through the main basement
to the upper esplanade.   There remains nothing in Italy that equals

618—Circular court, palace of Caprarola.   (From photo.)

Caprarola in point of
composition. It has been
suggested that Vignola
may have obtained some
suggestions from his trip
to France, but it is proba-
bly the other way around.
Perhaps the best earlier
analogy is the famous
Castel del Monte of the
thirteenth century, built
for Frederic II.   Fig.
618 gives a view of the
circular court and Fig.
619 the effective circular

staircase, which should be compared to Bramante's earlier staircase
at the Vatican.

619—Centre of circular staircase, palace of Caprarola.   (From photo.)

CHAPTER III

WHILE it is true that the Italians were the least constructive nation in Europe, it is also, by a strange contrariety, true that in the history of Renaissance architecture it was only the Italians who were called upon to face big constructive problems and facts. It is only in church architecture that the vaulting of large and elaborate interiors is required. In Italy the building of large churches never ceased. On the contrary, the loss of faith, the abundance of medieval churches, and the Protestant Reformation combined to stop church building throughout the rest of Europe almost entirely during the sixteenth and seventeenth centuries, when the Renaissance was making its way toward England across the continent. So, it is mainly in civil buildings that we must study the Renaissance outside Italy. It resolves itself then in all these countries to a matter of composition and decoration, and not of construction. In this way it is very decidedly narrowed, because, after all, the bulk of the striking works in Italy are the churches—especially the domical churches—and the cloistered monasteries.

The trouble in describing them is to establish types in a field where individual fancy played riot. The decay of traditions in the Church itself made the clergy prone to cast past liturgical requirements to the winds, leaving to the architect almost perfect freedom to use any ground plan and any internal structure that his fancy or his desire for constructive and æsthetic experimentation suggested. In one innovation, however, one may trace the effect of a popular demand that exercised a certain pressure on artists—I mean in the incorporation of private chapels into the plan, to cater to wealthy families of the city or parish.

In place, then, of and in addition to the old basilical plan of nave

and side aisles, with an occasional variation at the choir end, we have the following main types: (1) Latin cross; (2) Greek cross; (3) concentric plan; (4) hall plan; (5) square plan. These may be sub-divided according to the kind of covering used — wooden roof, cross-vaulting, tunnel-vaults, or domes; also according to the presence or absence of aisles and chapels and the extent to which they are used. The variations are infinite.

At the beginning stands the masterpiece of Brunelleschi's associate, Michelozzi, the Portinari chapel (1462–68) in Sant' Eustorgio at Milan, with its twelve-sided ribbed domical vault on a high lantern: it is a palpable reproduction of the Pazzi chapel and the sacristy of San Lorenzo. But on the decorative side we find here a decided advance, which may be due to Lombard influence. There is a charming combination of ornamentation in relief and in color. Each pendentive has a painted angel with a shield, and above the circular cornice, in the drum, is a line of angels in relief and colored, carrying ropes from which hang bouquets of flowers and standing in front of a line of false arcades. Besides

620—Section of S. Satiro, Milan. (From photo.)

this somewhat elaborate color scheme there are simpler arrangements of white grotesques on a green ground for pilasters and archivolts, of cherub heads in red on a green ground for an impost frieze,

621—Detail of frieze, S. Satiro, Milan. (From photo.)

and of white volutes on a violet ground for the spandrils under the
vault. This is the earliest consistent scheme of decoration for a
small church interior in the new style. To the same class of building
and also in Milan is the sacristy of S. Satiro by Bramante, which is
selected for illustration in Fig. 620 as also an early decorative master-
piece. Its frieze with heads in high relief is one of the most notable
pieces of early internal decoration (Fig. 621).

It is curious that the cathedral of Cortona (Fig. 622) has been neg-
lected by critics, because, commenced in 1456, it was, perhaps, the first
important structure
of the Renaissance to
be vaulted with a
combination of cross-
vaults and tunnel-
vaults. The plan is
a square-ending ba-
silica without tran-
sept. The nave is
covered by a continu-
ous tunnel-vault sup-
ported merely by col-
umns joined by round
arches. The aisles

622—Nave of cathedral, Cortona. (From photo.)

have ribbed cross-vaults of Gothic type. I think this scheme remained
unique. The slender columns were inadequate, at least theoretically,
to bear the weight of the vaulting, and the heavy piers which were
soon to be used by Alberti became the rule. We do not know the

architect, but his entablature blocks over the columns seem to betray
a Florentine.

In the cathedral at Pienza we can study another early experiment.
It is by Rossellino, a colleague and follower of Alberti. The scheme of
plan and interior is Gothic, and German Gothic at that; the surface
treatment and ornamentation are classic. It is curious to find in 1462
a hall church of this type, with nave and aisles vaulted at almost the
same height with Gothic ribbed cross-vaults supported on slender
grouped piers. It is a short and broad Latin cross with a curious pen-
tagonal choir and only four bays to the nave. The capitals are sur-
mounted by an exaggerated form of the entablature block and by a
supercapital. Either Pope Pius II prescribed the form of the interior
or else Rossellino was extraordinarily indifferent to the changes in
church architecture. One is reminded of Siena cathedral.

Sant' Agostino in Rome, however, would be a similar instance of an
unclassic strain in the Renaissance of these masters between 1460 and
1480. Its nave and aisles are covered with groin vaulting compart-
ments, and as there are two bays in the aisles for every bay of the nave,
as is the case in Lombardy, and as the aisles are low and the supports
close together, the effect is quite Romanesque, especially as this in-
volves the Romanesque alternation of heavy and light supports and
the use of continuous engaged columns to connect with the vaulting,
with characteristic entablature blocks. It is not necessary to go to the
Rhineland for the medieval prototype of this scheme, as Mr. Moore
does; it is merely the case of an adoption of national medieval motifs
similar to those with which Brunelleschi familiarized us. Lombardy
was drawn upon instead of Tuscany or Rome. The rich and charming
pilasters of this church, with their vases, schematic flowers, plants, and
volutes, are similar to the work of the Lombard sculptors who executed
most of the beautiful sepulchral monuments in Rome shortly before
1500. From the time when they were called to Rome and its neigh-
borhood in consequence of their work in the palace at Urbino with
Baccio Pontelli, who afterward did so much work in Rome, they
revolutionized the decorative style of Renaissance architecture.

The cathedral of Faenza, begun in 1474 by Giuliano da Majano, is
another interesting attempt by a Florentine to combine a complete
system of vaulting with the basilical plan. The preservation of the
medieval ceiling by Brunelleschi in his churches did not appeal to the
modern spirit of his successors, and while some of them were developing

the Greek cross and other forms of concentric plan, Giuliano produced
a nave covered by a series of calottes or depressed cupolas, supported
by square piers with engaged pilasters. These alternate with columns,
necessary to support the vaulting of the aisles, where two bays corre-
spond to each one of the nave. The arrangement harks back to the
Romanesque scheme of Lombardy and Normandy, but especially of
Saxon Germany. The result can hardly have been considered suc-
cessful, and was not imitated. The nave is very low and poorly
lighted by the oculi which replace regular windows. This more than
offsets the preservation of the Tuscan delicacy of proportion in the

623—Nave of Sant' Andrea, Mantua.   (From photo.)

supports. There is, to be sure, greater structural character in the
decoration by the use of pilasters to support the engaged entablatures
of the nave, a feature which Brunelleschi had been able to use only
against his side walls. A peculiar feature is the use of the Ionic order
in place of the more popular Corinthian and composite. Its sim-
plicity emphasizes the feeling which one has that however successful
the early Florentine school was in its decorative scheme for palace
architecture and for smaller units such as chapels, porticoes, and courts,
it signally failed to create a well-decorated interior on a large scale.
There is nothing to correspond to the felicitous Gothic northern mem-
berment or to the doctrinal series of earlier Italian frescoes of the age

of faith. For anything corresponding to the latter we must wait for the Sistine chapel.

A church of the early Renaissance which undoubtedly had the greatest effect on future work was Sant' Andrea at Mantua, which was begun by Alberti in 1472. Although it was not completed until much later, it was done according to his plans. It is a grandiose structure in the form of a Latin cross, with chapels in place of side aisles. The dome on pendentives at the crossing is supported by enormous hollowed piers and abutted by the short barrel-vaults of the apse and transepts and the long barrel-vault that covers the nave. The proportions are perfect. Notwithstanding the colossal size of each element in the design, the unbroken sweep of the lines and the small scale of the decorative details give full value to the dimensions of this interior, which is one of the most harmonious and successful of the Renaissance. One cannot help crediting Lombard art with the decorative element in this success, because we do not meet with its counterpart either in the Florentine or the Roman school. The idea of such enormous spans for arches and vaults was derived by Alberti from Roman structures; from such ruins as the baths of Diocletian and Caracalla and the basilica of Maxentius. The coffered revetment, the frescoed pilasters, the panelling, the piers, the pilasters on their high pedestals, were all from similar sources (Fig. 623). One of the most influential imitations of this scheme of interior at a late date is the church of the Gesù at Rome. (See p. 195.)

The church of the Madonna del Calcinaio, near Cortona, had as

624 — Madonna del Calcinaio, near Cortona. (From Geymüller.)

much influence on vaulted architecture in Central Italy at the close of the century as S. Andrea of Mantua had in the north.   It was a Latin cross with single tunnel-vaulted nave and octagonal dome, begun in 1485 from the designs of Francesco di Giorgio.   This architect was adapted to leadership in constructive work, because he was the foremost engineer and military architect of his day, a purist and ardent Romanist.   His qualities show at their best in the splendid lines and symmetry of the interior, which redeem the excessive simplicity.   Fig. 624 gives a section across the short arms of the cross.

In studying this whole class of domical churches, one can pass almost without transitions from interior to exterior.   The cathedral of Como has not only great value in this respect but as showing how a late Gothic interior could merge into Renaissance, as can also be seen in the Certosa at Pavia.   The view at the transept, where classic was superposed on Gothic detail, given under Spain, can be supplemented by the exterior from the apse in Fig. 625.   The design was by Rodari modified by Solari (c. 1500).   The exquisite nature of Rodari's detail can be judged from Fig. 626, which gives one of the windows of the nave.   The dome itself was carried out much later.

The church of the Umiltà at Pistoia is well worthy of careful study, not merely for its peculiar plan and

625—Rear view, cathedral of Como.   (From photo.)

structural form, but for qualities which we miss in some of the large vaulted structures of this period: beauty of detail, of profiles and proportions.   The body of the church is an octagon, with its high dome resting on solid walls, but it is preceded by a monumental closed vestibule of almost as great architectural value, with a small

central dome and tunnel-vaults. The view of the interior from the
vestibule in Fig. 627 shows the unusually graceful two-light windows,
like those of certain Flor-
entine palaces, and the
slender Corinthian pilas-
ters marking the angles of
the octagon. As was the
case in the Pazzi chapel,
the vestibule received a
richer decoration than the
main structure. The large
dome was completed by
Giorgio Vasari on a slight-
ly different plan from that
of the original architect,
Ventura Vitoni, who com-
menced the building in
1494.

A special type of dome
was that used by Bra-
mante in his early days, at
Santa Maria delle Grazie
in Milan (Fig. 628). He
was still under medieval
influence and used the low,
hemispherical profile. The
dome is circular, resting on
pendentives on a square
plan, and its exterior abut-
ments quite mask its out-
line. This consists of an ex-
ternal sixteen-sided drum
which rises quite far above
the springing of the dome.
On a parapet which crowns
it rises an open gallery
with two round-headed
arcades on each face on
which rests a roof which

626—Window in nave of cathedral, Como.

627—Pistoia. Interior of S. Maria dell' Umiltà, seen from narthex. (From Geymüller.)

628 — Rear of Sta. Maria delle Grazie, Milan. (From photo.)

extends up to the lantern with very slight inclination. When we compare it with its evident medieval prototype at Chiaravalle near Milan, one is tempted to think that Bramante planned further galleries in retreat and a loftier lantern.

A charming development of this type, under the influence of Bramante, is Sta. Maria della Croce, at Crema (Fig. 629), a gem of composition and of terracotta decoration.

Notwithstanding the craze for vaulting, there were still a few churches with wooden roofs built even after 1500. Quite an interesting instance, though a plain one, is San Salvatore del Monte outside Florence, built by Il Cronaca in 1504, where the beams are uncovered and rest on a heavy cornice supported by pilasters. In the composite piers of the nave it is evident that the Roman wave had then reached Florence, displacing the column.

A "freak" in vaulting of extraordinary in-

629—Sta. Maria della Croce, Crema. (From photo.)

terest is the scheme of the cathedral of Sebenico. The view of the transept given in Fig. 630 will show the unusual fact that the exterior is an exact transcript of the interior. The two styles are quite evident. It was begun in late Gothic style in 1430 at the façade end, and carried as far as the string course with intersecting arches. Then,

in 1441, Giorgio Orsini of Lara was invited from Venice to carry on the work, which he did in a peculiar style of early Renaissance, though, as it was not completed before his death, we are in doubt whether to credit to him the unique stone roofing.

The form of the covering of the central nave is that of a barrel-vault, but it is not a vault. At each bay a transverse arch spans the nave and on these arches rest courses of long tongued and grooved stones which follow the curve of these arches and are so accurately fitted as to keep out the rain. Half-barrel roofs of the same character were

630 — Cathedral of Sebenico. Gothic below: Renaissance above. (From Jackson.)

built over the already existing Gothic ribbed vaults of the aisles, forming a blind gallery which opens into the nave. The usual iron ties are used, but the ingenuity and daring of the architect are extraordinary. It would seem as if he were familiar with the interiors of Southern France of the Romanesque period and were attempting to imitate them without facing their structural difficulties. The light-

ness and simplicity are striking. There is absolutely no form of out-
side roof. The thin stone slabs form the ceiling on one surface and the
roof on the other. The façades end in curved cornices which follow the
roof line, and the octagonal dome rises to a great height on its square
drum, with long, slender windows framed by Corinthian pilasters.
The entire composition is graceful and simple. Of course the Vene-
tian connections are evident, not only in the similar curved façades of
S. Maria dei Miracoli and S. Zaccaria, which will be described later,
but in the roof of the Miracoli, which is in the shape of a barrel-
vault but is entirely of wood. So far as I am aware the Sebenico
experiment was never repeated, and yet it has stood the test of time
exceedingly well.

The most successful exteriors were those of the domical churches
of concentric plan, like Santa Maria della Consolazione at Todi and
San Biagio at Montepulciano, because in these designs the main façade,
of which most Renaissance archi-
tects made a failure, was rela-
tively unimportant (Figs. 631,
632). It is almost pathetic to
watch their efforts, also, to work
bell-towers into their scheme. As
we have seen, there never was a
time when the campanile became
an integral part of the church
design in Italy, as it was near-
ly everywhere else in Europe.
Rather an interesting attempt at
symmetry occurs at San Biagio,
by Antonio da San Gallo, where
two square towers with octa-
gonal spires (only one was fin-
ished) occupy the space in the
recesses of the arms of the Greek

631—S. Biagio at Montepulciano.

cross, their faces being parallel with the three façades of the church.
Their two lower stories correspond to those of the church, including
the Doric frieze. Giuliano da San Gallo in some of his sketches,
one of which is given in Fig. 633, has evolved some severe and semi-
secular types, and there are numerous drawings showing similar
schemes of architects that were never carried out.

I have omitted to speak of the façades of these churches.   It was inevitable that here would be the most difficult problem in design with which the new school would be obliged to cope, because the classic orders, with their strict norms, could hardly be bent to the necessary exigencies of a façade without violating certain established rules of proportion. Let us see how the difficulty was met in the works we have been studying and a few others. As the façades of Santo Spirito and San Lorenzo were never executed by Brunelleschi, we do not know exactly how he would have designed them. Neither does Michelozzi's work show us his solution. So we reach Alberti.

There were two types of façade made popular by Alberti. The first was embodied in San Francesco at Rimini, one of the most peculiar and interestingly hybrid buildings in Italy. The architect was obliged to use a pre-existing

632—S. Biagio at Montepulciano, by Antonio da Sangallo.
(From Schütz.)

Gothic building. He enclosed it with a classic stone revetment and planned to crown it with a large dome. Only a part of his scheme was carried out; the façade was never completed and the dome never begun. A medallion by Matteo dei Pasti shows us what it would have been, though the dome is evidently exaggerated. At Rimini itself there exists a memorial arch built under Augustus, and this served as Alberti's model for the façade in columns, arcades, and

even the medallions in the spandrels.   By comparing with the medallion scheme the façade as its exists, in Fig. 634, we can see that the second story was to be crowned by a gable supported on Corinthian engaged columns, enclosing a large window within the central arcade. The side spurs, which are now plain and of straight outline, were to have been curved, perhaps in the scroll-like form we shall see at Santa

633—Sketch for a façade never built, for S. Lorenzo, Florence, by Giuliano da San Gallo.
(From photo.)

Maria Novella or Sant' Agostino.   The stone work inside the arcades that flank the portal was to have been carved with decorative or figured design.   I lay some stress on this façade because it is the earliest, the purest, the most classic, and the best proportioned of a type that became popular and uninteresting.   The imitation of the Rimini arch is made clearer by the placing of the engaged columns against the face of the masonry instead of at the angles, as later became the custom.

634—S. Francesco, Rimini. (From photo.)

Alberti himself, when he remodelled the Santa Maria Novella façade, still kept the columns away from the angle.

Before speaking of Alberti's other façades, I must refer to one by his pupil Rossellino, which was very closely related to this Rimini façade, and was equally classic Roman: the façade of the cathedral of Pienza (Fig. 635). Its interior and plan were described on p. 154. The façade is in absolute contrast to the Gothicizing interior. It is severely classic, and in its perfect preservation has the advantage over its predecessor at Rimini. It has the same simplicity and felicitous proportions. The main difference, the equal width of the second

635—Cathedral of Pienza. (From photo.)

story, was made necessary by the equal height of the nave and aisles.

The façade of San Bernardino at Perugia (1461), by Agostino di Duccio, is the most richly carved façade in central Italy. Its lines are so overlaid that one is apt to forget (Fig. 636) that its general design

636—S. Bernardino, Perugia.   (From photo.)

is extremely simple, a transcript of the Roman triumphal arch. This takes us to Rimini, where the sculptures of the interior are of the same style (Fig. 637). Agostino was a follower of Alberti. He shows it in another work at Perugia, the Porta San Pietro, which so strongly imitates the antique. This façade of San Bernardino, it must be remembered, is earlier than the Certosa at Pavia, and shows the superior unity in richness that is a Tuscan prerogative. The use here of statues in niches, borrowed from the antique, is an early case of a very favorite method of decoration. But it had occurred even earlier, at the Or San Michele in Florence, where the statue of Saint George by Donatello—one in a series extending about the whole building—shows a perfectly symmetrical relation of statue to niche. In modern work the tendency is to make the niche altogether too small and shallow.

Returning to Alberti, one of his greatest talents was his respect for earlier medieval work. He succeeded so well (Fig. 638) in remodelling the medieval façade of Santa Maria Novella that it is not easy to say just where his work begins and ends. In his decoration of the large scrolls which fill the gap between the centre and the wings he uses with

exquisite taste the polychromatic marble veneer in delicate geometric patterns which was characteristic of the Tuscan Middle Ages. The scrolls themselves seem to have been his invention. They were incorporated as permanent features into the common fund of Renaissance designs, even by the designers of the later scientific and barocco

637—Architectural figure decoration: "Music," in S. Francesco, Rimini. (From photo.)

periods. They were reversed consoles, and Alberti probably borrowed them from the keystones of Roman triumphal arches. The central rose-window is medieval, and when one compares the other features, even the crowning gable, with the incrustations and general forms of the Florentine baptistery, there is nothing here that a medievalist would have disowned. It seems a pity that all this warmth and mel-
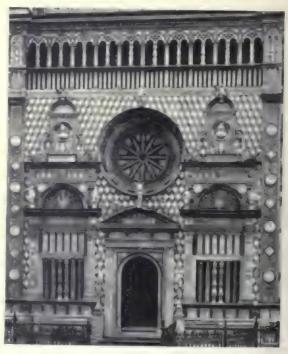
638—S. Maria Novella, Florence.   (From photo.)

lowness of tone and wealth of design should have been discarded in purely Renaissance façade design. In another example of welding on to medieval work—the Misericordia at Arezzo —he adds a more frankly classic upper story to a Gothic lower story, while keeping the same artistic feeling. As a further illustration of façade decoration of marble and polychromy I will give the charming front of the Colleoni chapel in Bergamo, a work of advanced Lombard technique also reminiscent of the Middle Ages (Fig. 639).

I may as well trace the Rimini type of façade a little further, as it is illustrated between 1471 and 1484 at Sant' Agostino in Rome by Giacomo di Pietra Santa or Baccio Pontelli. The interior has been described (p. 154). The façade when compared to Fig. 638 shows a distinct falling from grace in its exaggeration of the spurs, in the lack of functional connection

639—The Colleoni chapel, Bergamo.   (From photo.)

between the two stories and its general infelicity of lines and propor-
tions. This type was repeated in Rome at Santa Maria del Popolo,
San Giacomo dei Spagnuoli, in Turin at the cathedral, where round-
headed windows replace the oculus, and it was adopted by the
scientific architects of the Roman school in the sixteenth century,

beginning with that of
the church of the Gesù
in Rome and others, by
Vignola and Giacomo
della Porta. Of course
in these later façades the
early severe details were
replaced by rampant and
tasteless Barocco fea-
tures. In some cases the
two stories were devel-
oped into three and even
four, until there came
a reaction against these
minute subdivisions.
(See Fig. 676.)

The second type of
façade created by Al-
berti was one in which
the framework was in a
single story in place of
two stories. In his de-
sign for Sant' Andrea at
Mantua, this scheme is
consistently carried out.
He furnished in it a
model which did not at

640—S. Andrea, Mantua.   (From photo.)

that time appeal to architects, owing perhaps to its exaggeration of
the size of the orders; but about a century afterward it was adopted
in principle by the scientific school, especially by Palladio, to whose
sense of the grandiose it appealed. This façade is clearly (Fig. 640)
based on the form of a Roman triumphal arch, as was the case with
the Rimini façade, but in this case the model was not a single arch of
the Rimini type but one like the arch of the Gavii at Verona, with

angle columns and niches between the columns, and a gable over the
entablature. The curious open arch set above the gable, the fore-
runner of Bramante's Belvedere niche, seems to me suggested by the
curved niche over another Roman arch at Verona, the "Arco dei
Leoni." In the deep recessing of the main arch of this façade, which
accentuates its resemblance to a triumphal arch, we find a feature
that is practically unique. The closest approach to it in design and

641—San Satiro, Milan. (From photo.)

in grandiose virtuosity is
the slightly later façade of
S. Maria at Abbiategrasso,
also in Lombardy, possi-
bly an early work by Bra-
mante. In this case the
central arcade occupies the
entire façade instead of be-
ing flanked by pairs of im-
mense pilasters enclosing
three stories of doors and
niches. By this change the
Abbiategrasso façade lost
the resemblance to a Ro-
man arch. A simple Bra-
mantesque scheme mid-
way between the Rimini
and Mantua types is S.
Satiro at Milan (Fig. 641).

These two enormous
open porches, if we may
call them so, rather em-
phasize the distaste of Re-
naissance architects, as a rule, for such an arrangement. They
were sometimes partial to large, closed narthex porches of quasi-
Byzantine type, like the one at the Umiltà in Pistoia, described on
p. 157, but these were an integral part of the main structure. During
the Middle Ages the Roman province and the south had been almost
alone in using the open porch applied to the façade, so that it is not
surprising to find the majority of the Renaissance open porches in
and near Rome. At San Marco in Rome, which is the church of
the Palazzo di Venezia, described on p. 120, the massive portico

in two stories, with three arcades below and blind arches above, is like a portion of the massive *cortile* of the palace itself.   Other simply classic porches can be studied at Santa Maria della Navicella, San Pietro in Vincoli, etc.   The most beautiful is away from Rome, at Spoleto.   The cathedral façade has an open portico of five arcades, built in 1491, where the Roman pier is substituted for the Tuscan column.   It is the most symmetrical and delicate of these simple works.

In Tuscany there are occasional porticoes, but they are at times rather like the covered markets—almost independent structures.

642—Portico of Sta. Maria delle Grazie, Arezzo.   (From photo.)

Benedetto da Majano built one in front of Santa Maria delle Grazie at Arezzo, light in its proportions and extremely decorative (Fig. 642). On the whole, it is safe to say that porches played no important part in the development of façade designs.

Two other types originated before the close of the fifteenth century: a square-topped façade, which was developed in the north; and a curved-top façade, which originated in Venice.

Of course the square-topped type usually belonged to the class which was quite independent of the lines of the buildings, a piece of applied decoration in which the artist suited himself as to outline

and memberment.   The most spectacular of these is the famous façade
of the Certosa at Pavia, while the most artistic curvilinear façade is
that of S. Zaccaria at Venice, barring perhaps the one at Sebenico,
whose cathedral I describe on p. 173.

The façade of the Certosa at Pavia was applied to the (Fig. 643)
existing medieval church by Lombard artists of the last quarter of the
fifteenth century.   It is one of the most famous products of the early
Renaissance, and yet it violates its fundamental principles in its lack
of simplicity.   It is really a transitional work, though one fails to

643—Church of La Certosa, Pavia.   (From photo.)

connect it with any existing medieval prototype.   The first things that
strike one, after becoming accustomed to its florid confusion, are: that
the four buttresses dividing it into five sections and the open gallery
over the first story and under the cornice are medieval features; that
the upper half is quite different from the lower part and shows the
simpler lines of the Venetian school of the Lombardi.   Of course the
way in which the statues are placed in canopied niches is entirely
Gothic.   It is curious to notice at this early date the tormented
artificial and broken lines which we shall condemn in the Barocco

style.   The   columns   are   historiated,   and   broken   into   baluster
forms.

It was in 1473 that the Mantegazza brothers, rather goldsmiths than
architects, began work on the sculpture.   It would be difficult to exag-
gerate· the wide in-
fluence of this façade
on decorative design
not only in marble
but terracotta, so that
eventually it was felt
even outside Italy, in
parts of Germany and
France.   At the op-
posite pole stands
the later square fa-
çade of S. Bernardino
at Aquila, by Cola
dell' Amatrice (1527),
with its absence of
decorative detail.

In the curvilinear
façade of S. Zaccaria,
Venice (Fig. 644), we
see something equally
unique, at least on
such a scale.   The ar-
rangement of windows
brings to mind their
grouping in the centre

644—S. Zaccaria, Venice.   (From photo.)

and wings of Venetian palaces.   The architects who had the most
to do with this façade were Coducci and Gambello.   Another form
of curved façade is that of the Scuola di S. Marco, also in Venice
(after 1485), where the central semicircle is flanked by two smaller
and lower semicircles.   This should be compared in its wonderful
decoration with S. Maria dei Miracoli.

Of the three church façades by Palladio in Venice—S. Francesco
della Vigna, S. Giorgio Maggiore and the Redentore—the latter (Fig.
645) best illustrates the application of the classic gable and the grand
order to this class of design, establishing a new type almost in the form

of a classic temple with wings. In order to secure the right module for his order Palladio was obliged to raise the engaged shafts on an extravagantly high basement at S. Giorgio. This is eliminated at the Redentore, where he also reduces the importance of the wings. This type seems out of place in Venice in its frigidity of style and material;

645—Il Redentore, Venice, by Palladio.   (From photo.)

but it is typical of the scientific school which largely ruled the six-teenth century. There could be no greater contrast than between this type and that of the Certosa of Pavia. An entirely different scale of proportions had been introduced into design; minuteness of detail and high finish were out of fashion, together with the use of marble, for which travertines or similar stones were substituted.

CHAPTER IV

CIVIC ARCHITECTURE AND ORNAMENT

THE decay and downfall of the free republics, with the advent of the Renaissance, brought with it a diminution of the importance of the monuments of civic architecture in the exact ratio that it increased the splendor of the palaces of the great nobles whose tyranny replaced republican rule. The palaces and villas of the Pitti, the Gonzaga, the Este, the Medici, the Malatesta, the Farnese, and their ilk, some of which have been already described, occupied the architects on a scale similar to that of the Town Halls and Guild Halls of the Gothic era. On the other hand, some new classes of civic structures were created, of considerable interest, due to different conditions and ideals. The new Humanism led to the erection of library and university and hospital buildings; the new classicism, to the reproduction of basilical halls and triumphal arches; the new paganism, to the building of theatres sometimes modelled on the antique.

The Teatro Olimpico at Vicenza, designed by Palladio, was begun in 1580 and finished after his death by his son, Silla. It may be considered the master's most original creation. The exterior is insignificant. The view of the interior in Fig. 646 shows the proscenium to be a public square toward which seven streets converge, three of them meeting beyond the central triumphal arch that forms the main approach, the others opening independently. There is an elaborate attempt at effects of perspective and distance, and no variations of scenario were possible. The popular façade composition, with the classic orders and numerous statues in niches and on bases, is used rather monotonously both on the scene and in the rear wall of the auditorium: it is unique on this large scale as applied to an interior.

Among hospitals the earliest and largest is the Ospedale Maggiore

at Milan, founded by Francesco Sforza in 1456, and built in a mixture
of styles, the earliest combining Gothic arches with early Renaissance
terracotta details, the whole planned as a huge quadrangle around a
court. Very early is the Malatesta Library at Cesena, by Matteo Nuti
of Fano, completed in 1452. Its delightful hall, in three naves sup-
ported by columns and vaulted, is well worth study for its propor-
tions. Most famous of all library buildings is, of course, the Libreria
di S. Marco in Venice, began in 1536 by Sansovino, which was badly

646   Teatro Olimpico, Vicenza: designed by Palladio.   (From Schütz.)

damaged in 1903 by the fall of the Campanile. It is one of the best
known buildings in Italy and hardly requires description. It ad-
mirably illustrates the contrast between the extreme refinement of
Sansovino's manner and the more virile, original and massive style of
Palladio. The view of the corner in Fig. 647 not only shows the detail
fairly well, but the contrast with the truculent rustic work of the
neighboring arcades of the Zecca does not conceal the fact of the in-
artistic inflation of the entablatures, especially on the second, Ionic,
story, where it is made to house a mezzanine!

Among the few communal buildings that are really notable, perhaps the foremost is the delightful Palazzo del Consiglio, already illustrated in Fig. 571, with its remarkable polychromy. Rather similar in its symmetry is the Loggia del Consiglio at Padua (Fig. 648) by Biagio Rossetti, who was the architect of the famous Palazzo dei Diamanti at Ferrara. The same simplicity rules, in contrast to the other Lombard current of superabundant decoration, with which we are so familiar. An even more exquisite if heavier design is that of

647—Libreria di S. Marco, Venice, by Sansovino.
(From photo.)

the Municipal Loggia at Brescia, if we eliminate Vanvitelli's hideous addition above the second story: pilasters, piers and single square-headed windows replace columns and grouped round-headed openings.

Among civic buildings on a small scale Brescia itself has the most extraordinary gem in the little façade of the municipal "Le Prigioni," given in Fig. 649, where the so-called grand order is used as a frame for a delicate

648 Loggia del Consiglio, Padua: by Biagio Rossetti. (From Schütz.)

and "primitif" design, still in the columnar style. An interesting combination of columnar and pier design in another work on a small scale is the court of S. Maria della Pace in Rome (Fig. 650), by that prince of transitionists, the great Bramante.

Another court of unusual design, and interesting also as an example of early university architecture, is that of the University of Padua, shown in Fig. 651. It is by Jacopo Sansovino, and was begun in 1493.

649—Le Prigioni, Brescia.   (From Schütz.)

The use of two simple superposed colonnades is decidedly unusual, especially at this date, and the simplicity is accentuated by the extreme slenderness of the columns. The most splendid evolution of this double trabeated design was in Milan, where it was used, with coupled columns, in the court of the seminary palace, designed by Meda.

The so-called Basilica at Vicenza is a strange anomaly, and one of the works on which Palladio spent the greatest time and thought (Fig. 652). Undoubtedly it exercised an enormous influence over contemporary and subsequent design. Its type of central pier with detached groups of flanking columns sustaining the archivolts of the arcades became extremely popular. The work occupied a large part of Palladio's life-time. He built his grandiose two-storied arcades around the four sides of an oblong Gothic structure. He designed it in 1545, but it was not completed till 1614. He made it famous in Book III of his *Trattato d'Architettura*, which helped to carry his manner over a large part of the western world.

Of triumphal arches it is hardly necessary to say more than that they seldom had any decorative sculpture after the brilliant
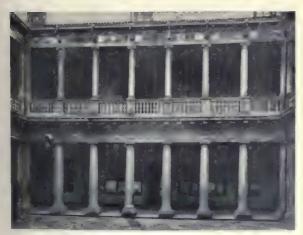
opening made at Naples in the arch of Alfonso (see Fig. 572), and their designers, beginning with the San Gallo family, used broad and simple lines with at times statuary in niches. City gates and triumphal arches were often indistinguishable during the sixteenth century. We have already spoken of those two grandiose works of Sammicheli at Verona, the Porta Palio and Nuova, where the grand order is used to create a semi-military style (Fig. 604). Such annexes as porches and porticoes were usually heavy in proportions, with simple piers.

650—Cortile of S. Maria della Pace, Rome: by Bramante. (From photo.)

Very seldom was there anything of the type of the charming portico at Arezzo given in Fig. 642.

Mention should be made here of certain religious structures of a new type. The most interesting are the establishments called *Scuole* in Venice, which are some of the most charming products of its school; such are the Scuola di S. Marco, Scuola di S. Giovanni Evangelista, Scuola di S. Rocco.

651—Court of the University, Padua: by Sansovino. (From photo.)

ORNAMENT. — During its earlier periods the Italian Renaissance

652—The Basilica, Vicenza: by Palladio.   (From photo.)

of certain schools, especially the Tuscan, Lombard and Venetian, de-
veloped a rich scheme of decorative detail and memberment. This
has been evident in the course of the preceding chapters. Brunel-
leschi's use of color in the Robbia ware was a passing phase.
Michelozzo's freer use of the classic orders was carried to perfection by
Alberti, but his application of classic motifs to surfaces and architec-
tural details was brilliantly developed by Rossellino, Luciano di
Laurana and the Lombard pupils of the Florentine masters. In Figs.
574 and 575 the decorative work of the Riccardi palace can be studied.

In Fig. 584 is a small detail of the wonderful sculptures at Urbino executed under Laurana. Other works of about the third quarter of the fifteenth century are the façade of S. Bernardino at Perugia (Fig. 636), the chapels of S. Francesco at Rimini (Fig. 637), which are unique in their charm, originality and richness, and the earliest part of the façade at Pavia (Fig. 643). It may be said that it was just before 1475 that the decorative norm was established that was the last until the second decade of the sixteenth century. It was derived largely from

653—Doorway of Sala de Gigli, in Palazzo Vicchio, Florence: by Benedetto da Majano.
(From Schütz.)

such works as the Roman triumphal arches, whose pilasters, friezes,
cornices and vaults furnished the necessary models, supplemented by
numerous sarcophagi and fragments of larger Roman buildings,
especially the temples.

In Fig. 653 is a doorway of the Sala de' Gigli, in the Palazzo Vecchio,
ascribed to Benedetto da Majano, which illustrates the sort of interior
detail so perfectly developed at Urbino. To Urbino I would refer for
some of the most perfect designs of fireplaces and chimney-pieces. In
the detail from the façade of the Scuola di S. Marco, given in Fig. 654,

654—Scuola di S. Marco, Venice: by Pietro Lombardi. Detail of façade. (From photo.)

it is evident that its designer, Pietro Lombardo, studied the frieze of
the temple of Antoninus and Faustina in Rome. The richer phase of
the Lombard and Lombardo-Venetian schools is very far removed,
however, from any classic models. This is illustrated in the central
section of the façade of S. Maria dei Miracoli, also in Venice (Fig. 655)
and also designed by Pietro Lombardo. Nothing richer or more ex-
quisitely worked was produced by the Middle Renaissance. Its date is
1481-88. To bring the evolution down to the year 1500 or later and
in the extreme north, we cannot do better than study the cathedral of
Como (see Fig. 626 and p. 157), which has some of the most superb
work of the Lombard School, mostly by the Rodari brothers. Very
unusual are the windows. Only in some Romanesque windows of the

655—S. Maria dei Miracoli, Venice: central section of façade. (From Schütz.)

churches of the province of Bari can such profuse decoration be seen
as in Fig. 626.   There is far better arrangement and more effectiveness
in these Como designs than in most of that in Venice and Pavia.

Thus far all the decoration mentioned has been of marble, but in
the north of Italy it has already been noted that terracotta was a fre-
quent substitute--a medieval inheritance.   At the Certosa of Pavia
itself the two cloisters are entirely faced with terracotta detail both
ornamental and figured.   One of the arcades is given in Fig. 656.   A

656—Terracotta arcade, cloister of the Certosa of Pavia.   (From photo.)

glance at the section of S. Satiro, at Milan, in Fig. 620 and the detail
of its terracotta frieze in Fig. 621 will illustrate the use of terracotta
in interiors.   In so far as design is concerned there was but little
difference, except that both continuous designs and great delicacy of
detail could not be used in terracotta work.

On the other hand, great effectiveness and richness could be ob-
tained by mass effects, as in the façade of the Stanga palace in Fig.
596, and occasionally a felicity of profile that gives the effect of del-
icacy, as in the Bevilacqua windows (Fig. 594).

In stucco, on the other hand, it was possible to obtain the delicacy of detail denied to terracotta, and a certain *brio* and sketchiness seldom found in marble. This can be seen, for example, in the famous piers of the cortile of the Palazzo Vecchio in Florence (Fig. 657), which illustrates another peculiarity of stucco work, that it is less prone to the subtle transitions between planes that makes so much of the charm of the corresponding work in marble.

A study of the treatment of ceilings and vaulting is one of the best indexes of the evolution of architectural decoration. This part of decoration was much more fully developed now than during the Middle Ages. There had been, of course, such exceptions as the wagon roof of S. Fermo, illustrated in Fig. 352[1], but the art was really evolved in connection with civil architecture during the Renaissance. Another exception at this time is the famous ceiling of S. Maria Maggiore in Rome, gilded with the first gold from the New World. The earliest instance here

657—Stucco pier of Court, Palazzo Vecchio, Florence. (From photo.)
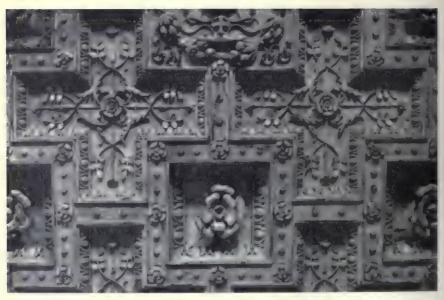
illustrated is in Fig. 574 from the chapel of the Riccardi palace, Florence, where the transition from ceiling to wall is superbly managed. On a large scale is the ceiling of the great hall of the Palazzo di Venezia in Rome, also of the fifteenth century. Fig. 658 shows how exquisitely pictorial design was used to transform a partly medieval scheme. In Lombardy great use was made of painted ceiling and frieze panels, with allegorical and historic heads and busts; also in Umbria.

But a purely classic scheme of flat ceiling was also introduced, based on models found especially in the coffered vaults of Roman arches, baths and temples. One of the most monumental groups of flat ceilings is in the Doge's palace, Venice; others of unusual distinctiveness are in the Palazzo dei Diamanti at Mantua and the Palazzo Vecchio at

[1] Figure 352 will be found in Volume III.

658—Ceiling of the Palazzo di Venezia, Rome. (From Austrian Monograph.)

659—Detail of ceiling, Cancelleria palace, Rome. (From photo.)

660 —Loggia of the Palazzo Doria, Genoa: decorated by **Perino** del Vaga.   (From photo.)

Florence.   The coffered design was applied to tunnel vaults, of course, such as S. Maria dei Miracoli in Venice, the corridor of the Massimi palace and the vestibule of the Palazzo Farnese, both in Rome (Fig. 591).   We see how it was used on the intrados of arcades in Fig. 625;

and on a larger scale in Fig. 627 at Pistoia. It was also applied to groin vaulting and to domical surfaces. It is used on an enormous scale in the barrel vaults of Alberti's masterpiece, S. Andrea at Mantua (Fig. 623). Perhaps the earliest and most epoch-making work which illustrates its application to all three of these forms of vaulting is the famous Villa Madama near Rome, designed by Raphael and decorated by his foremost pupils, especially Giovanni da Udine and Giulio Romano. As this decoration was practically completed before 1525, it stands for the early fruitage of that study of the decorative motifs of the stuccoes of Roman ruins—such as the Golden House of Nero and the larger Roman tombs as well as temples and arches.

The influence of this admixture of sources is shown in the free way in which coffered design is used in varying sizes and forms. Here also polychromy was an important element. The ceiling of the hall of the Cancelleria next to the chapel is a charming bit of wood carving of the same period. A detail in Fig. 659 shows a more regular design than at the Villa Madama, with extremely delicate detail.

In all parts of Italy there is such a wealth of ceiling and vault decoration that it is impossible to do more than hint at the different methods employed: wood carving, stucco, polychromatic sculpture, painting. A good example of the combination of stucco and painting is the loggia of the Doria palace at Genoa, given in Fig. 660. Its decoration is said to have been designed by the well-known painter Perino del Vaga, Raphael's pupil.

CHAPTER V

THE border lines between the manners represented by the triple title of this chapter are so misty that one risks trouble in too sharp definitions.   Ricci, in his recent monograph on Baroque architecture in Italy, says that Baroque art is often confounded with that of Michelangelo and the *epigoni* of the Renaissance, who furnished it with forms and ideas, and also with the Rococo style, which transformed its solid, vigorous and emphatic qualities into lightness and fragile grace.   The period covered by this combination of styles may be roughly reckoned as the two centuries between the middle of the sixteenth and that of the eighteenth century.

Italy was by no means homogeneous.   The Roman school, headed by Michelangelo, was the principal rival of the northern or Lombard masters, Tuscany hardly counting in the evolution.   It was from the north that emanated the wave of fantasy and extravagance which finally invaded the Roman school and smothered its classic traditions and feeling for the grandiose.

In previous chapters the works of the scientific school of the second and third quarters of the sixteenth century have been studied: the works of Giulio Romano, Sammicheli, Palladio, Sansovino, Vignola. Michelangelo's work was hardly touched upon, only as shown in the Palazzo Farnese.   Now, it was Michelangelo's genius which touched the springs of Baroque activity.   It was his break with traditions and formulas, his love for colossal detail and broken lines—as illustrated in broken gables and cornices—which more than any other cause influenced the men like Ammannati and Buontalenti in Tuscany, Galeasso Alessi in Lombardy and Genoa, Pellegrino Tebaldi and Terribilia in Emilia and Lombardy.   These architects and decorators were the initiators of both Baroque and Rococo motifs.

661—Bird's-eye view of St. Peter and its square.   (From photo.)

Before describing any of the advanced works about which rages so violent a controversy as to good or bad taste, the church of St. Peter must be studied.

662—Chronological plan of St. Peter (showing also old basilica: from Melani).

The basilica of St. Peter in Rome, whatever our opinion may be of it, is one of the most important landmarks in architectural history because of the great influence which it exerted. This influence is not merely or even mainly of the building as it exists, with its annexes, but of the building in process of making; and St. Peter's as it was planned to be carried out by various great masters, produced offspring of types quite different from what the parent eventually became. This interesting fact is illustrated as fully as possible in the accompanying cuts. The view in Fig. 661 makes it clear how wonderfully the

effect of the church itself is enhanced by the colonnades. The plan in
Fig. 662 is in itself a historical synopsis in six stages named from the
architects successively in charge of the construction: (1) Rossellino;
(2) Bramante; (3) G. da Sangallo; (4) Michelangelo; (5) Maderna; (6)
Bernini. The delicate outlines of the old basilica can be seen inside the
larger new plan.

When it was evident that the old basilica required reconstruction,
Bernardo Rossellino planned a renovated church on the old plan. But
Pope Julius II soon after put Bramante in charge and he planned a
revolutionary design: a Greek cross with central dome. Bramante's

663—Bramante's scheme for St. Peter.   (From Geymüller.)

scheme, as reconstructed by Geymüller, is given in Fig. 663. It was
never carried out, but influenced successive architects who followed
Bramante in charge of the works, such as Baldassare Peruzzi and
Giuliano da San Gallo. The scheme of San Gallo for the façade is given
in Fig. 664 not only for its monumental and unusual character but
because the scheme here outlined of a façade flanked by enormous
towers became known to other architects from this *projet*, so that, while
it was never carried out, echoes of it can be seen, for instance in the
façade of S. Maria in Carignano at Genoa, designed by Alessi (Fig.
668). The scheme to be actually carried out, though in part only,

664—San Gallo's design for façade of St. Peter.   (From photo.)

was that of Michelangelo, whose dome was higher and more pointed than Bramante's. What Bramante's dome would have been can be gauged from the exquisite tempietto of S. Pietro in Montorio at Rome. This chapel (Fig. 665) had an influence quite out of relation to its size, an influence that can be traced as far and as late as St. Paul's in London. At the time of his death in 1514 Bramante had not been able to carry the work beyond the piers for the central dome, starting from the apse end. Raphael, who succeeded Giuliano da San Gallo, and Antonio da San Gallo, who favored a return to the plan of the Latin cross, accomplished but little. When Michelangelo took charge, while adhering to Bramante's scheme of a Greek cross, he modified the rest of the design very materially. By suppressing the gallery he changed the proportions of the interior; by eliminating the eight minor apses around the side domes and the adjoining sacristies with the towers, the symmetrical pyramidal effects were destroyed and the scale of the details enlarged. The most radical change was the enormous increase in the height of the dome above the drum, which resulted in a masterpiece of design. The most satisfactory idea of the exterior of the dome
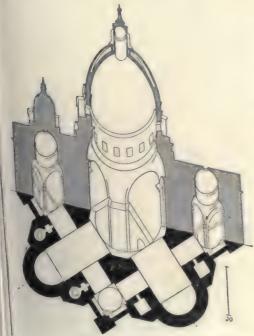
665—Chapel of S. Pietro in Montorio, Rome: by Bramante.   (From photo.)

is given by a photograph of the wooden model made under the direction of Michelangelo himself (Fig. 666). In Fig. 667 is Michelangelo's entire scheme as reconstructed by Choisy. The master's favorite pupil, Vignola, built the two small towers; Jaccpo della Porta finished building the dome. Under Paul V, a radical change was made at the instigation of Carlo Maderna. This architect after 1605 abandoned the Greek for the Latin cross and added the three bays of the nave as we see them, vitiating the entire effect both of exterior and interior. To

666—Model of Michelangelo's dome of St. Peter.
(From photo.)

667—Michelangelo's scheme for St. Peter. (From Choisy.)

him also are due the vestibule and façade. The building was finally dedicated in 1626. Bernini's colonnades were added later. The section in Fig. 669, giving the church as it is, is interesting to compare with Bramante's scheme. While in course of construction this mammoth church exerted an influence that can be gauged only if we eliminate its later accretions. For example, S. Maria in Carignano, at Genoa (Fig. 668), already mentioned, imitates St. Peter's even in the façade which it was supposed St. Peter's was to have but did not.

668—S. Maria in Carignano, Genoa.   (From photo.)

While the central dome acquired such preponderance, there were still built some churches not on the concentric plan. In order the better to appreciate the approaching domination of the central dome it is interesting to note that the cruciform basilical plan with several domes had held the field, succeeding or parallel with the type that has been described of the tunnel-vaulted nave and central dome. S. Salvatore at Venice with its three domes, two over the nave and one at the crossing, supplemented by eight small domes in the aisles, is really semi-Byzantine in its scheme, like some of the Romanesque churches of Perigord. It was completed in 1534. The interior of Sta. Giustina at Padua, built between 1501 and 1532, shows perhaps in this

669—Section of St. Peter, Rome.   (From Melani.)

particular of a domical
nave Byzantine remi-
niscences due to the
neighborhood of Ven-
ice. It is simple and
strong in its lines, and
combines successfully
over its side aisles tun-
nel vaulting with the
three central domes
(Fig. 670). Its long
transept is effective.
The Ionic piers, which
support both the line
of domes and the tun-
nel vaults, are remark-
ably light, and this is
perhaps the most suc-
cessful of its class. Its
architect was Andrea
Briosco.

670—Padua, interior of Sta. Giustina.   (From photo.)

Next to St. Peter's
in the extent of its influence, not only in Italy but throughout
Europe, is the church of the Jesuits, the Gesù, in Rome.   It is the lineal

671—Church ot the Gesù, Rome.   (From photo.)
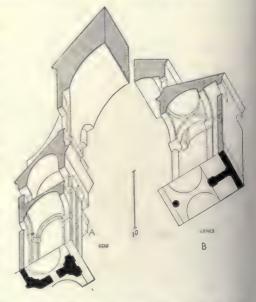
672—Façade of the Gesù, Rome. (From photo.)

descendant of Alberti's superb scheme for S. Andrea at Mantua, as a comparison of the two interiors will show (Fig. 671, comp. 623). Of course the connection with St. Peter's is also evident. There is even a more strongly marked subordination of the side aisles to the great tunnel vault of the nave and the central dome. The decoration is extremely flamboyant. In contrast the façade is (Fig. 672) plain, in two stories separated by a sort of *attica*. The travertine helped, as usual, to prevent the use of fine detail. There is not the use of broken gables which deforms so many façades of this age, but, on the other hand, the designer was guilty of the aberration of a curvilinear enclosing a triangular gable. The usual scroll connects the narrow upper with the wider lower story. It was the fact that this church represented the Jesuits at their fountain head in Rome that led to the spread of its type of architecture through a considerable part of Europe during the late sixteenth and seventeenth centuries, to such an extent that this phase of Barocco architecture has been called by some critics the Jesuit style.

673—System of the Gesù (left) and of the SS. Annunziata, Genoa. (From Choisy.)

Fig. 673 gives the sys-
tem of the Gesù on the
left side and on the right
that of the Annunziata,
at Genoa, which is an im-
portant derivative of the
Gesù, and full of Barocco
stuccoes.

It was in 1567 that
Vignola made the draw-
ings for the Gesù; it was
completed by Giacomo
della Porta in 1575, to
whom the design of the
façade is due, and en-
larged in 1623.

The masterpiece, how-
ever, of Barocco church
architecture is in Venice:
the church cf S. Maria
della Salute, which came
in the generation after
the Gesù. It was begun

674—Sta. Maria della Salute, Venice.   (From photo.)

in 1631 by Baldassare Longhera, the last of the great architects who
worked in Venice and whose Rezzonico and Pesaro palaces have

675—St. John Lateran, Rome.   (From photo.)

already been noted. It is
a most successful composi-
tion and is without the
cold and arid air of its
scientific predecessors or
the flamboyancy of some
of its contemporaries, like
S. Moisè in Venice itself,
by Tremignon. There is a
classic richness to the main
façade, like a Roman tri-
umphal arch, and the
wheel-like scrolls are less
like excrescences than but-

676—S. Maria di S. Celso, Milan.   (From photo.)

tresses (Fig. 674).   In the other façade, that of S. Moisè, while the
framework of the scientists is adopted, with a main story of four
colossal columns, a low second story with pilasters, and a plain gable
with pents, the decorative elements within this frame give it a

warmth and brilliancy more in harmony with Venice than Palladio's
correct frigidity at Il Redentore.

The Roman branch of the Barocco school remained simple and
grandiose, perhaps because here the scientific school of Vignola and his
contemporaries governed its evolution until it passed into the hands
of Maderna and Bernini. Two works are here selected to illustrate this
tendency: the façade of St. John Lateran and the court of the Palazzo

Barberini, as represen-
tatives of religious and
civil styles.

The Lateran façade
in Fig. 675 is in consid-
erable contrast to any-
thing yet seen except, of
course, the façade of St.
Peter. It is a later work,
by Galilei, in 1734. The
deep shadows produced
by the double porch gal-
lery make it perhaps the
most effective of all late
façades. Another of its
predecessors, in some re-
spects, is the façade of
the Fontana di Trevi
(see Fig. 682).

Compare with this
tendency to the single
grand order the opposite
tendency in the façade
of S. Maria di S. Celso

677—Decoration of façade, Palazzo Negrone, Genoa.
(From photo.)

at Milan (Fig. 676), designed by Galeazzo Alessi and built by Martino
Longhi, with its four stories and two quasi-mezzanines. Notice the
reminiscence of the court of the Palazzo Marini in the upper pilasters,
and the Michelangelesque statues in the centre. I believe this design
is the most extreme instance of horizontal subdivision.

The opposite tendencies can best be studied at Genoa, where Alessi
made Barocco exceedingly popular. His fantastically rich design was
illustrated, somewhat ahead of time, on p. 144, with a cut of the court of

his Palazzo Marini at Milan. How it culminated in Genoa can be judged
from the detail of the Negrone palace in Fig. 677. Here is a rich com-
bination of carefully framed pictures, as if hanging on the walls of a
gallery, flanked by stuccoes of unusual piquancy. The figures sur-
mounting the gables show the inroads of Rococo, as does much of the
design over the windows. It is a late work by Parodi and Ansaldi
(early Eighteenth century).

It is true then there had not been wanting in Rome itself instance
of rich façade decoration: the street façade and court façades of the

678—Palazzo Ricci, Rome. (From photo.)

Palazzo Spada with their
stuccoes, paintings and
sculptures; but this work,
begun as early as 1540,
was by a northern archi-
tect, Guido Mazzoni (Fig.
592). More thoroughly
Roman, and also just pre-
ceding the Barocco, was
the development by pupils
of Raphael and Michel-
angelo of the use of graffito
and chiaroscuro designs
for façades. Purely deco-
rative work was done by
early masters, especially
Rossellino, but in this
later stage figures almost
entirely superseded orna-
mentation. Some well-
known painters produced
quite freely in this field,

which they did not appear to consider beneath them. Such famous men
as Giulio Romano, Giovanni da Udine, Baldassare Peruzzi and Polidoro
da Caravaggio are associated with the decoration of façades of Roman
palaces. In Fig. 678 is a notable work by Polidoro, the Palazzo Ricci.
In most cases the composition is, as it is here, dominated by classic
motifs, especially triumphal friezes, battle-scenes and statuary.

Palace architecture of the seventeenth century was quite con-
ventional in certain respects and original in others. The Roman school

retained the dignified simplicity, broad lines and classicism of the preceding period.   The façade of the Palazzo Barberini, by Bernini (1629–30), with two stories over an open arcade, uses the three orders, with single not coupled shafts and pilasters.

Borromini's colonnade of the Palazzo Spada (1632) is in fine Tuscan Doric, and here again the vestibule of the Farnese palace is the prototype.   An imposing exterior is that of the Gran Guardia at Verona, begun in 1609 by Curtoni, a nephew of Sammicheli, who inherited his manner.   Of its two grandiose stories the lower is rusticated without orders, in a high and narrow arcade, and the upper story has bays

679—Cortile of Palazzo Borghese, Rome.   (From photo.)

divided by coupled half columns and with mezzanine windows in the wings.

The most serious breaks in this simple style are to be found in the north.   At Turin, for example, the Palazzo Carignan, by Guarini (1686), is a spectacular instance of bad taste.

The court of the Palazzo Borghese, by Martino Longhi (1590), has already been referred to as an instance of Roman conservatism.   Fig. 679 shows it as a symmetrical, simple and logical work, which differs hardly at all from the style of the Golden Age, except in the use of the coupled columns, and these are derived from such earlier works as Giulio Romano's Palazzo del Tè, which was more exactly copied, with pier between the columns, in the court of the Ducal palace at Modena by Avanzini (1635).   The extent of Roman influence is shown by the

fact that the court of the university of Genoa built by Bartolommeo Bianco in 1628 is an almost exact imitation.

One of the most delicate Rococo designs for a portal is the doorway of the Palazzo del Grillo in Rome. Every canon of Renaissance work is abandoned for tormented and broken lines and unexpected effects (Fig. 680). The lines of Bernini's statuary are followed almost exactly.

For interior Rococo effects of the same characters the view in Fig. 681 of an alcoved hall in the Palazzo Mansi, at Lucca, is unusually broad, with its sculpture in the round, its spectacular reliefs, its frescoed perspectives and its pictures and tapestry panels. Two features of interior arrangement were developed quite beyond previous types: the stairways and the picture galleries. It was at Genoa that staircases first became spectacular and an example belonging to this period has been already given under Fig. 614. Michelangelo had used it in the Libreria Medicea at Florence. Starting from Bramante's Scala Regia

680—Doorway of Palazzo del Grillo, Rome. (From photo.)

the idea spread and developed throughout the seventeenth century and culminated in the Palazzo Madama at Turin. The great narrow galleries of the same period correspond to the similar galleries of French and English palaces, chateaux and county seats. There are several in Rome (e. g., Palazzo Doria).

The famous Fontana di Trevi at Rome illustrates (Fig. 682) quite a common thing in the Roman school: the union of Barocco and Rococo. The façade, architecturally considered, has the simple lines of St. Peter's with the centre plagiarized from a Roman arch of triumph.

681—Salon and alcove in Palazzo Mansi, Lucca. (From photo.)

682—Fontana di Trevi, Rome. (From photo.)

But at its base and merging into it by means of a central rock on which is poised a picturesque and unclassic Neptune, is one of the most successful and typical of Rococo compositions. There are other monumental fountains in Rome that illustrate this on a smaller scale, such as the one near the Termini in Piazza S. Bernardo.

Quite naturally, also, it is in the villas near Rome, at Frascati, Tivoli, etc., as well as farther north (Caprarola, Viterbo, etc.), that a similar combination of Barocco and Rococo forms can be studied.

683—Casino of the Pamphili-Doria villa, Rome: by Algardi.   (From photo.)

The Casini in the grounds were not only treated with greater freedom but were flanked and supplemented by walled terraces in which fountains and niches lent themselves to Rococo treatment. The façade of the famous Villa Medici in Rome is unique in its lavish use of original antique figured reliefs; but in many cases there is considerable use of genuine or imitation antique statuary. In Fig. 683 is an unusually symmetrical casino, that of the Villa Pamphili Doria, and to the left is the retaining wall of the terrace at its rear. The design is by Algardi.

Of the peculiarities of the style in the field of decoration, almost enough has already been said on the plastic side. But there was quite an extraordinary use of painting. In the first place, there was a lavish polychromy in marble facings and details. The interior of S. Martino at Naples in Fig. 684 shows the quite common custom of a general veneering. Then, with the spread of domical architecture combined with the love for exaggerated pictorial perspective for which the fashion was set by Correggio, there was an almost unbelievable virtuosity shown in filling domes with hundreds, even thousands, of figures, intermingled with clouds and sky.

In Rome there is a masterpiece of this sort by Andrea Pozzo (c. 1680) in the church of S. Ignazio. An even more elaborate work is the dome of S. Matteo at Pisa (c. 1720), by Francesco and Giuseppe Melani, where

684—S. Martino, Naples.   (From photo.)

there is, besides the myriad figures and cloud effects, an elaborate scaffolding of architectural forms. A combination of stuccoes and painting is illustrated in an earlier work, by Flaminio Ponzio (1611), in the Borghese Chapel at S. Maria Maggiore, which has a wealth of Barocco ornamentation of every description. The combination of polychromy and relief work from the designs of Domenichino in the ceiling of S. Maria in Trastevere, Rome (1617), is a typical instance of the treatment of flat surfaces. For similar work on curved surfaces, beside those just mentioned, the elaborate dome of SS. Annunziata at Genoa should be studied (see Fig. 673), designed in 1635-38

by Andrea Ansaldi. As a transition from classic design to these Barocco extravagances it is interesting to study the Cappella Paolina in the Quirinal palace, with stuccoes by Ferabosco in 1617; and also the fine stucco vaulting of the portico of St. Peter's, which, though executed in 1606–26, still shows a classic delicacy reminiscent of Raphael's school and the models of the Golden House of Nero.

Finally, as an instance of the rock-work on a large scale which is at the basis of the Rococo, nothing is more characteristic than the Isola Bella on Lake Maggiore, where the Grotto of Villa Borromeo has three stories of niches and grottoes with vaulted interior. More accessible for study are the Frascati villas, such as the Torlonia and Aldobrandini.

CHAPTER I

THE RENAISSANCE IN FRANCE

I N a study of the Renaissance Italy so overshadows the rest of
Europe that one is apt to lose sight of the fact that, while other
countries may be backward, France at least has made a distinct
contribution to architectural forms. It would also be a mistake to
believe that the Renaissance gained a foothold in France through
the decay and impotence of Gothic art. Beginning with the expedi-
tion of Charles VIII in 1489, the relations with Italy became exceed-
ingly intimate, and this culminated under the wonderful reign of
Francis I, whose art dreams were most poetic and far-reaching and
on a scale of lavish magnificence—dreams which he sought to have
embodied in Renaissance forms. The French nobles had already
turned, during the fourteenth and fifteenth centuries, from the simpler
feudal life, developing more and more art in the service of private
luxury. We have already had occasion to notice this (Vol. III, p. 154).
Now, in visiting the peninsula, as they did in large numbers shortly
before and after 1500, they came into close contact with that unrivalled
artistic and literary society that had developed throughout Italy, which
surpassed in display and comfort whatever their own country had
produced. They saw the state of such princely families as the Vis-
conti, the Gonzagas, the Este, the Medici and the wonders of the
palaces of Venice. It is not surprising that French artists were encour-
aged by the aristocracy and rich bourgeoisie of their own country
to look for models in Italy and that Italian artists were invited to
France. It was natural that the new art should thus make its en-
trance through civil and not ecclesiastical channels.

While the French artists showed themselves quick to understand
and adopt, they never abdicated their individuality. In fact they
must have been conscious of their own decided superiority on the

constructive side of architecture—a legacy from Gothic times. It is also quite a common feeling that if the two countries are compared, let us say, during the late fifteenth and sixteenth centuries in the matter of architectural plan and composition, in the arrangement of interiors both as to practical convenience and picturesque variety, the palm should be awarded to France. It is even quite conceivable that before the death of Francis I there may have set in a reflex action on Italy of the chateau architecture of France. The royal chateaux had set the pace, which the nobility followed. It was at Amboise, Gaillon, Anet, Chambord, Blois, St. Germain, Fontainebleau that the new art was both socially fostered and æsthetically evolved and illustrated.

The fact that it was a transformation and not a revolution furnishes at the beginning a class of transitional monuments of a novel character. In Italy Gothic and Renaissance no more mixed than oil and water; but in France the mixture was not only accomplished but has often a peculiar charm. The fact that the French genius was unwilling to abandon picturesqueness and variety, to subscribe to a mechanical imitation of the antique, or to adopt hard and fast rules such as the Italian architects of the scientific school of the sixteenth century delighted to formulate, led to the perpetuation for a long time of a Gothic substratum and to the creation of independent types. The commonest forms of the Gothic survival were, in chateau architecture the use of the great medieval towers, and in the churches the survival of the general design.

It is a convenient habit to classify French Renaissance according to reigns, and Geymüller's division will be substantially followed here. The divisions up to and including the reign of Henry IV are: (1) Transition: Styles of Charles VIII and Louis XII, c. 1495-1515; (2) Pure early Renaissance: a.—Style of François I, c. 1515-1540; b. —Efflorescence: Style of Marguerite de Valois, c. 1535-1545; (3) Developed Renaissance: Style of Henri II, c. 1540-1570; (4) Late Renaissance: Style Charles IX and Henri III, c. 1570-1595; (5) Cosmospolitan Post-Renaissance: Style Henry IV, c. 1594-1610.
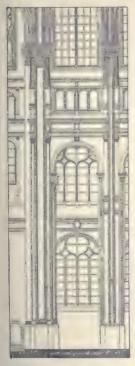
Italian ideas were diffused in France in many ways: by the Italian artists; by Italian books, prints, bronzes, drawings, etc.; by French artists who went to Italy. There are so few works in France that are in pure Italian style, without some native elements, that there has been a tendency in France to minimize the amount of work done

there by Italian artists in person, but, as Geymüller rightly remarks, Italian artists showed great flexibility in adapting themselves, and they undoubtedly acquiesced in the natural desire of their French patrons not to break entirely with national artistic canons. The same phenomenon had happened before in art history; in the case, for instance, of the numerous French architects who worked for Roman patrons.

CHURCHES.—I shall begin with ecclesiastical architecture, though the new forms did not first appear in this field, but in that of civil monuments. Still it is in the churches that we find best illustrated
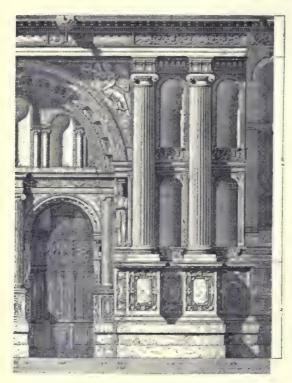
685—System of St. Eustache, Paris. (From Geymüller.)   686—Aisle of St. Eustache, Paris. (From Palustre.)

the puzzling questions involved in passing from Gothic to Renaissance because of the preponderance of structural features. Aside from these reasons the transition from Gothic to the new style was more difficult in church architecture on account of the disinclination of the clergy to modify traditional plans and arrangement. In Italy the clergy had become quite indifferent to these matters. So, when in 1532 Pierre

Lemercier began in Paris the construction of St. Eustache no building
seems thus far to have been started in France with Renaissance design.
This large structure stands alone in pretentiousness and hybrid
peculiarities. It barely misses being a work of genius (Figs. 685, 686).
The pointed arch is abandoned and a pinched round-headed arch
substituted in the nave. The orders are introduced and the tracery
is a compromise. But the scheme, with its flying buttresses, enormous
windows, grouped piers, engaged shafts and triforium, remains Gothic;
while pseudo-classic pilasters and entablatures are applied to the
surfaces in a purely artificial manner. In the plan it is evident that
Lemercier copied Notre Dame rather than later Gothic types, but in
such details as the pendant vaulting ribs he followed the worst late
models. This experiment of Lemercier, while in a way masterly, was
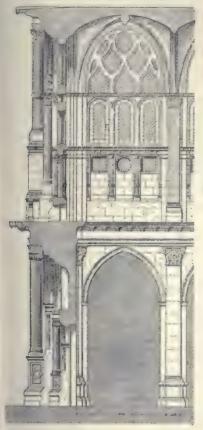
687—Portal of north transept, Church of Ste. Clothilde,
Le Grand Andely. (From Geymüller.)

unfortunate and found no
imitators. In Paris itself
the interior of the church
of St. Etienne du Mont
shows, a few years later
(1540), in its immense
cylindrical piers an even
clearer persistence of
Gothic forms, and only in
the balustrade of the pas-
sageway over the arches
is there any obtrusive
classicism.
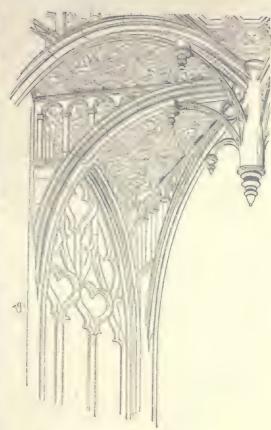
During the same dec-
ade Normandy was pro-
ducing some of the rich-
est, purest and most
beautiful works of early
and late transition in
church architecture. At
Le Grand Andely the
church of Ste. Clothilde
was designed by an un-

known artist of extraordinary merit who combined the scheme of
Romanesque façades of southern France (e.g. Arles and St. Gilles) with
the rich decoration of the middle Italian Renaissance. This artist is

even more cosmopolitan than Jean Goujon, to whom the church is
tentatively attributed by Geymüller, because so wide is his range of
sympathies that his caryatids are quite Romanesque and his victories
almost belong to a Roman triumphal arch!   Also note how the fine
restraint and delicacy about the portal and the main order is contra-
dicted by the quasi-rococo ornaments under the windows and on the

688—System of Ste. Clothilde,   689—Church of La Ferté-Bernard. Flat vault of
Le Grand Andely. (From Geymüller.)   chapel. (From Viollet-le-Duc.)

pedestals.   The cosmopolitanism is rounded out when we pass into
the interior and see how Gothic features are retained in such important
features as ribbed vaulting and pointed arches.   (Figs. 687, 688.)
    How delightfully the men of this generation combined the old and
the new in some of these church interiors is well shown in the church
of La Ferté-Bernard.   In Fig. 689 in connection with a large Gothic
window of one of the chapels we see the union of a flat panelled vaulting

of classic type with a Gothic ribbing that is detached from the vault and supports a pseudo-pendant keystone.   Then, in another of the pointed windows (Fig. 690) there is the most fantastic juxtaposition of Renaissance angels and figures with Gothic curves and foliage. For the application of classic design to such internal features as the central lantern, St. Pierre at Coutances should be studied; and for a

690—Church of La Ferté-Bernard. Detail of window. (From Viollet-le-Duc.)

similar combination of flat vaulting and ribs, as at La Ferté-Bernard, the church at Tillières.

Without going outside of Normandy, we find at St. Pierre in Caen perhaps the most beautiful transitional choir in France, built by Sohier, between 1521 and 1545. The plan of radiating chapels is Gothic; so is the lower part and the large upper windows. But there are classic pilasters in place of buttress piers, round in place of pointed arches, balustrades of classic design, and a rich surface decoration which shows that the architect must have studied the Certosa of Pavia and other works of the Lombard school, especially at Milan and Como.

A little later, toward 1550, St. Pierre at Auxerre (Fig. 691) was given a façade of the simplest transitional type: without towers, symmetrically divided into three stories of classic design, Ionic below and Corinthian above. Here, as at Caen, the flying buttresses are retained, with heavy tower-like buttress-piers, and there is similar use of simple round-

691—Auxerre Church, St. Pierre. (From photo.)

arched window tracery. But the percentage of Renaissance is much
larger than at Caen, particularly in determining important parts of
the design, which is handled with delicacy and firmness.

These church façades furnish quite an interesting touchstone
in the progress of transitional forms, in different parts of France. In
such façades as those of Le Grand Andely and Notre Dame at Tonnerre

692—West front of St. Michel, Dijon. (From photo.)

there is hardly a trace of Gothic, and freedom is practically achieved in the most grandiose of all, at St. Michel of Dijon (Fig. 692), though even here there are two manners. The lower story and the central windows of the second story date from 1537 or soon after; the rest is later. The main portal, though round-arched, is really a deeply recessed Gothic triple doorway. Even the flanking towers, though carried out in rugged mid-Renaissance manner, follow the medieval scheme, because there were no Italian models for such flanking towers. The central pair of high three-light windows, with their delicate mullions and tracery, are even more medieval. The four stories of the towers are sharply marked by the classic orders and are crowned by pure Renaissance domes, but the strongly projecting buttresses and turrets are medieval. An original touch is the charming tempietto *à la* Bramante over the centre of the porch. In contrast with this heavy Burgundian manner is the façade of the transept of the church of St. Florentin in Champagne, a province that always showed great charm of treatment. Its three stories show a prevailing tendency of French Renaissance as compared with Italian design, toward height and a multiplication of the units of design—a national inheritance. It is a work of unusual purity and delicacy and the wheel window is the only element that is not classic.

Finally, to show the phase of more direct Italian and classic influence in façade design, the church of SS. Gervais and Protais at Gisors should be carefully studied. The actual designing and execution were not Italian, but the several generations of the Grappin family of artists who worked on this church were clearly under the influence of Bramante. Not only that, but in the central part of the façade with the tempietto and the victories in the spandrels one is tempted to see the results of an acquaintance with the arch of Alfonso at Naples. The right-hand tower, with its three stories of orders, would have been unusual had it been completed, with its curious application of coupled shafts, derived perhaps from Roman triumphal arch design.

Returning now to the school of Champagne, we find here at this time an illustration of the class of work not only Italian in design but in personal supervision and handling; I mean the double portal of St. André-les-Troyes, built in 1549, with two stories surmounted by a gable. One of the two architects of this church was a Florentine, named Domenico, and this portal was undoubtedly due to him (Fig. 693). Troyes became the centre in Champagne of a very char-

acteristic Renaissance manner, illustrated in this city alone by six
churches.   In Touraine an interesting type of façade for small churches

693.—Portal of St. André-les-Troyes. (From Palustre.)

was developed, with a single
colossal arcade in the centre
enclosing the portals and the
windows above them; a typical
instance is St. Symphorien at
Tours (1531).

This brings us to the period
of Charles IX, to neo-classicism
and Barocco.   No new type of
church and no new structural
system had been created; only
new decorative schemes and sub-
ordinate designs.

CHATEAU ARCHITECTURE.+
It is clear, therefore, that for
creative work, for a consistent
style and a historic evolution, it
is necessary to study the works of civil architecture.   In Italy this would
mean mainly city palaces; in Germany mainly city halls; but in France
it means the country chateaux of the nobility.   A large number of
the chateaux which would be of great value to our study have been
destroyed.   Most important of these, perhaps, are Amboise Gaillon,

Bury, Bonnivet, Ma-
drid, St. Maur-les-Fos-
sés, Anet, the Tuileries,
Charleval.   Several of
them can be studied in
the contemporary draw-
ings or engravings.   The
chateaux that remain
are, however, numerous
enough to illustrate
every phase of the new
development—a de-

694—Chateau of Gaillon, restored. (From Palustre.)

velopment that is one of the most satisfying ever set before the
historian of architecture.   They embody also the personalities and
styles of all the great French architects of the sixteenth century.
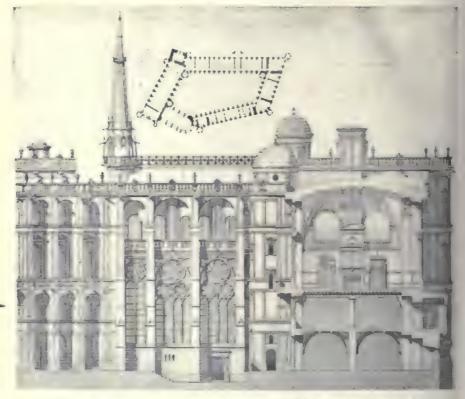
695—Chateau of Blois. Wing of Louis XII. (From photo.)

696—Chateau of Blois. East side of court, Louis XII. (From photo.)

Before studying single monuments some words by way of preface will be necessary. The first problem that met the architects who had adopted the new style, when they were given charge of the work destined to transform the princely dwellings of the nobility from military strongholds into pleasure palaces and villas, was how to use already existing buildings. It is a commonplace with students of chateaux of the sixteenth century that until the close of the century the plan and general outline was as a rule determined by the medieval castle, which was used as the basis for the new work. Its massive walls, its great corner towers and bastions, its scheme of defense, with central court, moat and bridge, had to be reckoned with and utilized. Viollet-le-Duc illustrated in his incomparable drawings the manner in which this was done, especially by cutting in the masonry great vertical gashes in which lines of large windows were inserted, transforming the dark towers into brilliantly lighted interiors. Of course, in a way, the fifteenth century had begun the work of changing
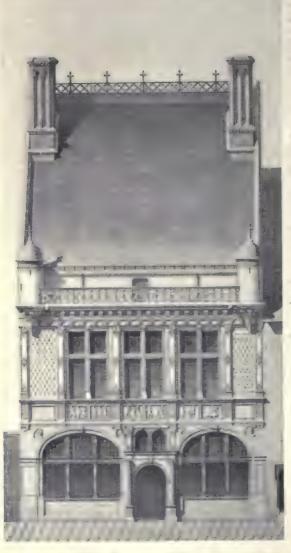
697—Chateau of St. Germain.   Section across Salle de Mars and N. face of chapel.
(From *Monum. Hist.*)

698—Chateau of St. Germain.   Exterior on South.   Chateau with chapel.   (From *Monum. Hist.*)

the grim fortresses into palaces, as has been shown in a previous chapter (Vol. III, p. 154).   The architects of the Renaissance merely gave a new direction to the work of transformation. Having in this way created a type, they adhered to it even when they had a free hand in absolutely new constructions, though introducing certain changes, such as substituting square for round towers at the angles.   A restored view of the chateau of Gaillon, built between 1497 and 1509 (Fig. 694), shows the early type.   It is perhaps the first structure of any importance in the new style.   Since its destruction, the most important details saved from the wreck can be studied in the court of the Ecole des Beaux Arts in Paris.   Compare it with the chateau of Mehun for a corresponding Gothic type in Vol. III, Fig. 176.

Of the innovations that came in France with the Renaissance in the use of materials the most important was undoubtedly the popularizing of brick.   Gothic had been essentially a stone-cutters' art in France, and brickwork had hardly radiated beyond a small section of the South, where we have studied it in the churches of Albi and Toulouse, which are in a class by themselves, and in private houses.   But

699 Hotel de Ville, Beaugency. (From *Monum. Hist.*)

as soon as Renaissance forms obtained a foothold the use of brickwork spread, especially, as we should expect, in civil architecture. This was undoubtedly due to direct Italian influence, especially from Lombardy. That it started with the royal school is shown by the Louis XII wing of the chateau of Blois (Fig. 695) where the checker-board design is used to produce a tapestry-like effect after an Italian manner that goes back to Gothic times (see Vol. III, Fig. 296).

In a more restrained way it was used in that other early royal chateau of St. Germain-en-Laye, where it dominates in the second and third floors (Figs. 697, 698). Here the architectural framework is of brick, whereas when stone and brick are combined the framework remains of stone in almost every case, as will appear in the instances of private houses now to be cited.

Among the general characteristics to be more particularly noted is one in which France steadfastly opposed Italian design; that is in the treatment of roofs. The rule in Italy is to conceal the roof; to make the unbroken line of the main crowning cornice the end of all architectural features. With French designers the adoption of the new style led

in the opposite direction. The height of the roof was increased instead of diminished. The dormers already used in rich forms, in the later Gothic work, were multiplied, and sometimes superposed, so that one-third and at times almost a half of the building was above the roof-line, and the dormers were supplemented by other architectural features such as decorative chimneys, spiral staircase towers, niches, belvederes, etc. Most distasteful to an Italian eye must have been the habit of cutting the roof and main cornice lines with dormers.

There are a few other special peculiarities, such as the general use of mullioned windows during the first period, the early reluctance to use the framing orders for the different stories except in an inconspicuous manner and usually with pilasters in place of shafts. A feature of some influence in the general scheme was the fact that usually the park or parks attached to the main building were brought into organic connection with it, and this gave a breadth to the design. It is interesting to study this particular illustration of the difference of the French and the Italian genius; the grounds were usually set in front in Italy and in the rear in France.
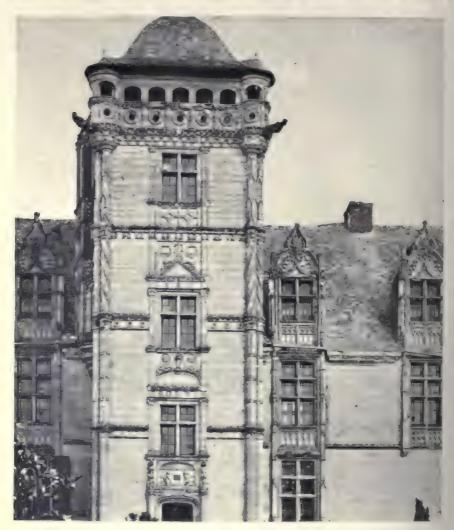
In civil and private buildings the transitional phase can be viewed in a different aspect from that under which it appears in church architecture. It expressed itself at first in decorative details, as has been said, and so can hardly be appreciated in general views.

700—Rouen: Hotel du Bourgtheroulde. (From photo.)
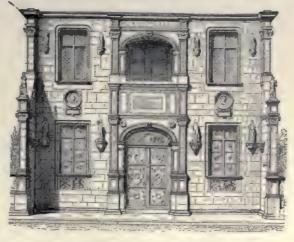
Still these general views must be given here in a few cases in order to show just how far the new design must have impressed any observant person. If one examines the charming little Hotel de Ville at Beaugency, for example, in Fig. 699, it is striking how the playful figures

701—Chateau of Chemazé. (From photo.)

of the frieze under the windows are reminiscent of Donatello and how purely Italian are the doorway, the medallions, cornice and pilasters. Yet this does not clash with the Gothic elements that are retained. Less clear is the new element in such works as the famous Hotel du Bourgtheroulde at Rouen. The left wing, of which

the end only appears in Fig. 700, is in the comparatively pure classic style of the next generation, but the main face with the tower-staircase seems at first glance to be entirely Gothic, until the details of the exquisite sculpture in low relief are studied. This Norman phase of proto-Renaissance decoration can be studied also in the

702—Portal of Gaillon in Ecole des Beaux Arts, Paris. (From Lübke.)

Grosse Horloge, also at Rouen, where among motifs of evidently classic origin there are also charming scenes of realism such as the lambs grazing that go to the fountain head of observation of nature rather than to Italian classicism for their Renaissance feeling. The façade of the chateau of Chemazé shows a slight increase in Renaissance elements over the Hotel du Bourgtheroulde, though the effect is hardly felicitous, owing partly to the restless effect of the decoration and the faint-hearted way in which pilasters and gables are introduced (Fig. 701), as well as the awkward lines of the framing piers, which are no longer Gothic but not yet Renaissance. On the other hand the architect who designed the staircase with its vaulting made a masterly bit of transitional work. He belonged to the same group that built the arcade at Blois in which panelled circular piers of this type alternated with classic piers. His use of quasi-ribs to form a sort of flat fan-vault is not only ingenious but artistic.

703 —Detail of pilaster from Gaillon at Ecole des Beaux Arts. (From Geymüller.)

It is a fact made particularly clear

by a study of the remains of the chateau of Gaillon at the Beaux-
Arts that at this time Italian and French types of ornament were
used side by side, each keeping its individuality. Some details are
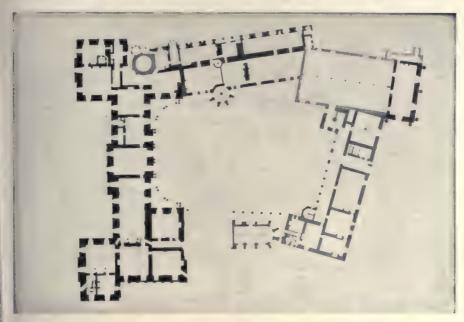
704.—House on the Rue de la Grosse Horloge, Rouen. (From Viollet-
le-Duc.)

Venetian, some are Lombard, some French (Figs. 702, 703). Then
there are cases where a Franco-Italian style is established by combin-
ing the two types into a hybrid product. The influence of Bramante,

which was to dominate for a while, already appears. The artists whose names are associated with Gaillon are especially Pierre Fain, Guillaume Senault and Pierre Delorme.

There is charming transitional work of a different nature in the class of half-timbered houses. Here the variations from such Gothic types as have been illustrated in Figs. 145–150 are not fundamental. At Rouen, where there are such fine examples of the Gothic period, there is a charming house in the Rue de la Grosse Horloge which is given in Fig. 704. It is entirely panelled in wood with Renaissance ornamentation, but otherwise varies from its Gothic predecessors

705—Chateau of Blois, general plan. (From *Monum. Hist.*)

mainly in a somewhat greater emphasis on the horizontal lines. Of course this style was only fleeting, and soon went out of fashion. In quite a different part of France, in the centre, at Orleans, where the pure Renaissance obtained an early hold, there are some half-timbered houses almost without stylistic traits built at the same time as the early Renaissance stone houses. In Vol. III, Fig. 150 such houses can be seen on either side of the stone mansion.

Now the way is clear for a study of the purely Renaissance cha-
teaux, after a glance at the transitional work at Blois already referred to. Since the destruction of the chateau of Gaillon (except for what

we can see set up in the court of the Beaux-Arts) and of the chateau
of Amboise (except the towers), it is at Blois that we must study
the passage from transition to pure Renaissance in chateau archi-
tecture. It is suspected that the Italian Fra Giocondo may have
had a hand in the wing built under Louis XII whose depressed arcades
appear in Fig. 698. Its date is c. 1498 and it is less pronounced in its
classic elements than Gaillon. In fact the scheme is still practically
Gothic; and in such details as the cornice it is the Gothic elements
that prevail in the jumble of the *motifs*, which include Renaissance
rosettes and egg-and-darts. The arrangement of the various
wings around the court can be seen in Fig. 705, where the Louis XII
wing occupies the right side. The side opposite the entrance shows
the later stage of pure Renaissance under Francis I. The cen-
tral section, with the famous staircase, is given in Fig. 706. It is
interesting to note the difference between French and Italian
architects of this period in the treat-

706—Chateau of Blois, staircase.

ment of the spiral staircase. In Italy they do not project but
are part of the interior; they do not break the outline. The
staircases of Bramante at the Vatican and of Vignola at Caprarola
(see p. 148) illustrate this type. But at Blois we find the continuation
of the Gothic tradition already illustrated (Vol. III, p. 146) at the Hotel
of Jacques Cœur, a tradition stronger than that of the internal stair-

case, of which an in-
stance was given (Vol.
III, p. 151) at the cha-
teau of Chateaudun.
While discussing stair-
cases it will be interest-
ing to cite as a model
of a less monumental
type the charming,
pure Renaissance stair-
way of the Château de
Lude in Fig. 707.
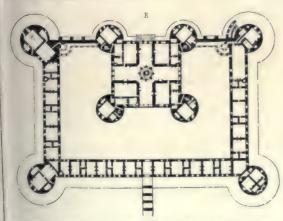
707—Detail of staircase at the Château de Lude. (From photo.)

Under the inspired
leadership of Francis I
the new style almost
at once assumed unity
and originality, and before his death the greatest individual archi-
tects of the century emerged. The art was fanciful rather than
practical. Its embodiment was Chambord, which was far more than
a chateau; it was a dream realized, a poem. While its architectural
defects are evident it has always been treated with indulgence by
the most critical historians. The plan in Fig. 708 shows how
its arrangement varied from the usual scheme. It was not an
ordinary residence but a pleasure palace. A diagonal view of the
approach in Fig. 709 illustrates the fantastic character of the
design above the roof line that has already been referred to. This

708—Plan of Chateau of Chambord. (From Viollet-le-Duc.)

is especially embodied in
the central lantern over
the staircase, which does
not appear in this cut,
with its buttresses and
volutes inherited from
Gothic. It is given in
Fig. 710 as the most
sumptuous detail in the
chateau, and that in
which there is the most
interesting use of the
orders and entablatures.

709—Chateau of Chambord, main front.   (From photo.)

The date is not later than 1519. The simpler staircase in the wing to the right is somewhat later in its execution.

The staircase at Blois, in the wing of the chateau which was built by Francis I a few years before Chambord, is the earliest of its type and the prototype for the Chambord staircase. It dates from about 1515. A section and elevation are given in Fig. 711 and the exterior with part of the elevation of the north wing in Fig. 706. In this design the system of outer pilasters is not yet fully developed, as it will be four or five years later at Chambord and there is a reminiscence of flamboyant Gothic in the statues and their canopied niches. A charming scheme, with a lower arcade of depressed arches like these of Blois, can be studied in the chateau of Le Rocher, by a Norman architect.
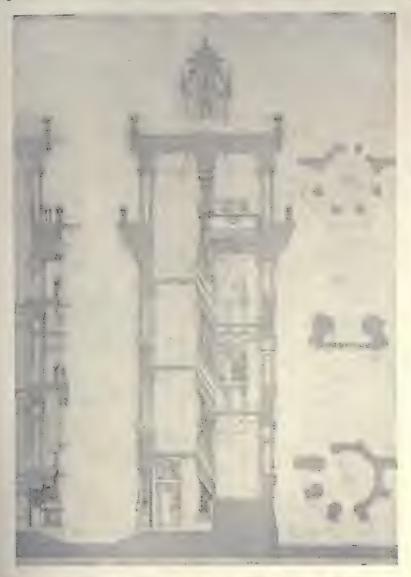
Chenonceaux and Bury, both near Blois,

710—Chateau of Chambord, main staircase. (From Geymüller.)
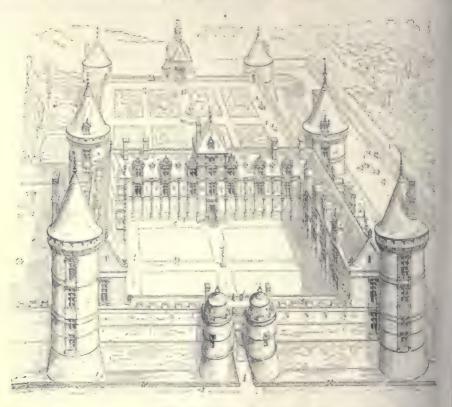
711—Chateau of Blois, main staircase. (From *Monum. Hist.*)

are chateaux of moderate size typical of the earlier phase of the style of
Francis I. In Fig. 712 is a bird's-eye view of Bury. The building is now
only a mass of ruins and the scheme was taken by Viollet-le-Duc from
du Cerceau's drawings. It is particularly symmetrical, with its two
stories of Renaissance pilasters and the unusually slender corner towers
with the typical tiers of windows, which illustrate how the earlier
medieval towers were gashed with windows when they were trans-

formed into the Renaissance. Beside the formal garden in the rear there were two on the left of which only a glimpse is given in our illustration.

Chenonceaux, recently bought by the millionaire chocolate manufacturer, Menier, was built mainly between 1515 and 1523, for Thomas Bohier. The view in Fig. 713 gives the main *coops-de-Logis* of this period on the side of the river Cher; the bridge was added in 1556 by Diane de Poitiers. Azay-le-Rideau, in the same district, shows

712 — Chateau of Bury. Bird's-eye view of restoration. (From Viollet-le-Duc.)

greater delicacy in details and more symmetry in its design. It is not based on pre-existing structures but is an entirely new design, yet the medieval features of machicolations and corner towers are retained. Its most decorative feature is given in Fig. 714.

There is nothing in chateau architecture of this age as original as St. Germain-en-Laye, near Paris. Its medieval character has been over-emphasized. On the contrary, its lack of such medieval features as corner towers, dungeon, dormers, battlements, high roofs, surbased

713—Chateau of Chenonceau.

arches, any one or more of which appear in the other contemporary chateaux, shows that the designer in this case as in no other made an absolute break with tradition.   The plan in Fig. 697 shows an

714—Central detail of court, Chateau of Azay-le-Rideau.   (From Palustre.)

715—East wing of court, Chateau of Bournazel.   (From Geymüller.)

716—Courtyard of chateau, Ancy-le-Franc.   (From Geymüller.)

717—Right wing of court, Hotel d'Ecoville, Caen.
(From Geymüller.)

irregular pentagonal scheme; the architect, who seems to have been Pierre Chambiges, was forced to include in it parts of a Gothic chateau, especially the exquisite royal chapel of St. Louis, which appears in side-view in Fig. 697 and in its apsidal end in Fig. 698. The exterior is plain; the façades on the court have a richer design, but still almost ruggedly simple. The four stories which appear on the left of Fig. 697 are characteristic. The effect is of vertical instead of the usual horizontal lines. The heavy buttresses were re-

quired to withstand the pressure of the vaulting, and this necessity led to this unique treatment.

A principle of design that was introduced in the second quarter of the century, in the sub-style called after Marguerite de Valois, was that of the rhythmic bay, with coupled pilasters or shafts. A perfectly proportioned example is the gallery of the east wing facing the court of the chateau of Bournazel (Fig. 715), a gem by the architect Baduel built in 1545, where the design has semi-columns with ressauts. Two other types were that with pilasters, as at Ancy-le-Franc (Fig. 716) in the court, and that flanking square-topped openings instead of arches and topped by dormers, as at the Hotel d'Ecoville at Caen (1532–38), where it serves to enclose a characteristically Norman richness of sculptured decoration, and which is earlier than either of the other types (Fig. 717). The origin of this grouping is, of course, the school of Bramante. It was given

718—Court of Archbishop's palace, Sens. (From Lübke.)
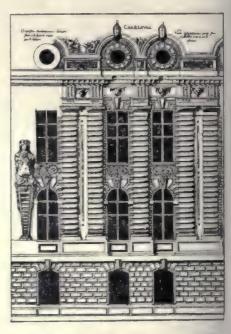
its ultimate form by the architect Ribonnier in the splendid chateau of Le Pailly, and especially by Pierre Lescot at the Louvre, where each group of the wider bays is crowned by a low gable that breaks the main cornice in a way that is blamed as not an advance in unity of design. It was made very prominent at the Tuileries somewhat later. The evolution covered the period between c. 1530 and 1575. We shall return later to Le Pailly and the Louvre. Just here it will be interest-

ing to give the system of the court of the Archbishop's palace at Sens (Fig. 718) as one of the purest and best masterpieces of the earlier scheme of even bays, and also, as a transitional piece of design, the system of the oval court of the chateau of Fontainebleau, also of earlier date (Fig. 719).

Later than the system of grouped supports came the introduction of the grand order. Its earliest embodiment is thought to be in the
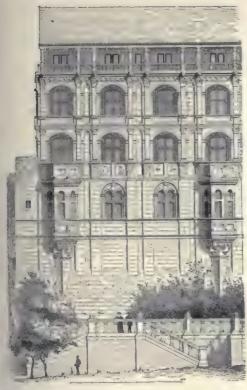
719 From the oval court, Fontaine-
bleau. (From Pfnor.)

720—Projet for outside of basse-cour of Cha-
teau Charleval. (From Geymüller.)

destroyed chateau of Queen Catherine de Medici at Monceaux, founded in 1547 and probably designed by Primaticcio. It had a great influence on du Cerceau, who adopted it in his spectacular designs for the castle of Charleval (Fig. 720), which were never carried out, and can be studied in the contemporary Hotel Lamoignon in Paris built before 1570 for Diane, daughter of Henry II. It was used in an unfortunate way in the Pavillon de Flore at the Tuileries, being supplemented by a crowning story with independent pilasters on a smaller scale. It is interesting to compare this Charleval scheme with that of the north side of Blois, a grandiose example of the earlier small order scheme (Fig. 721).

Quite an important rôle in the treatment of surfaces is now played by rustication; more important than in Italy. It was introduced almost at once, was developed by the great architects of the middle of the sixteenth century, especially by Philibert de l'Orme, in works most of which have been destroyed or were never carried out. It was used at Charleval on a large scale, at the Louvre and the Tuileries, at Le Pailly, Tanlay and Anet. It became even more the fashion under Henry IV. Every form of it known to Italy was employed, from the most delicately stippled or faced bossing to the roughest and most irregular. It was used usually only at corners,

721—North side, Chateau of Blois. (From Lübke.)

722—Court façade, Hotel d'As-sézat, Toulouse. (From Gey-müller.)

on pilasters, in staircases, basements or portals, and only seldom and later for the main walling. The Luxembourg palace, begun in 1615, is the crowning work of this manner, and the only one that is comparable to the court of the Pitti palace in Florence.

It must not be forgotten that in France as well as in Italy, though not with nearly the same frequency and richness, terra cotta as well

as stone was combined with brick. The South played a leading part in the whole movement, as was natural, because it had always been the home of brickwork. Toulouse, as in Gothic times, was its great centre, and here we find a great variety of treatment. In the Hotel d'Assézat, for instance, the charming three-storied façade of the court with its coupled columns (Fig. 722) is of brick with stone trim and stone and brick pilasters. In such combinations, without terra cotta, all the interest lies in the stonework. This can be seen in Fig. 723, a detail from another part of the Hotel d'Assézat court. This building is the finest of its class in France. In contrast to this well-articulated work of the

723—Centre of court side of street wing, Hotel d'Assézat, Toulouse. (From Geymüller.)

724—Toulouse: Hotel de Caulet. (From Gurlitt.)

developed Renaissance are two works, also in Toulouse, each illustrating a distinct type of later treatment. One is the Hotel de Caulet (Fig. 724), which has no framework of classic orders, but a wealth of Barocco-like detail in portal, balconies and gables. How strongly the caryatid design which is used here was sometimes emphasized in the Toulousan school will appear in the windows of

the Hotel du Vieux Raisin, where their effect is overpowering (Fig. 725). Of much better proportions and under the influence of Lombardy is the charming portal given in Fig. 726.

But before passing to the examination of the various forms of private architecture that arose in different parts of France under Francis I, we must become acquainted more systematically with the men who created the types of public buildings that have been examined and the various local schools of architecture which modified the

general trend of design. Of these two elements—the individual architect and the individual school—the school was in France the more important, and in this particular France differed from Italy, where the individual was paramount. One of the earliest architects that come in question illustrates this point very clearly. He is Charles Viart. He finished in 1498 the Hotel de Ville at Orleans, and shows in it that he was one of the first French architects to know and feel the ap-

725—Toulouse: Windows in Hotel du Vieux Raisin. (From photo.)

proach of the new Italian art. He built, later, the Hotel de Ville at Beaugency, given in Fig. 699, and here showed his mastery of pure Renaissance detail. Later still, in the wing of Francis I at Blois, he showed that he had advanced from the use of the new manner in decoration to its application to design. Here, then, is a master architect of the first rank who yet bows, as had always been the
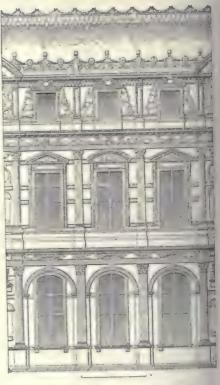
726—Toulouse: Hotel de Labordes.   (From photo.)

tradition in France, before the changing waves of taste.

Of the local schools the most important in every respect is that of the Loire. It may be called the royal school: that which gave the leading note. It can hardly be circumscribed, geographically. It has characteristics of delicacy, lightness, charm, symmetry. It may be said to embody the French ideal of the Renaissance. It has been illustrated here by Gaillon, Azay-le-Rideau, Chambord, etc. The so-called school of Fontainebleau,

which is also embodied in St. Germain, is an offshoot of which it may be said that it has greater simplicity. In contrast to this the Burgundian school varies from the norm mainly by greater richness and depth of ornamentation, and a direct study of the antique. It can be studied at Sens and Le Pailly. Normandy, also, has a tendency to decorative richness. In the South there is no uniformity. On the one side one sees the direct inspiration of the antique and the restrained beauty of Bournazel.

727—Paris: Façade of Louvre.   (From Choisy.)

Then again the riotous and unclassic richness of Toulouse. It is easy
to see that special schools were even developed and localized in single
cities, such as Orleans, Troyes and Toulouse.

728—Paris: Louvre, Pavillon de l'Horloge. (From Gurlitt.)

It must be admitted, at the same time, that certain individuals
emerged strongly enough to make their mark on contemporary devel-
opment. One of the earliest was Pierre Chambiges, of a family of
architects, who was responsible for a considerable part of the enlarge-

ments of Fontainebleau, under Francis I, especially the court of the
Cheval Blanc.   As he also directed the work at St. Germain, he may
be considered the leader of the
Fontainebleau school.   Pierre

729—West side of court, Château Le Pailly. (From
Geymüller.)

730—South side of court, Château Le
Pailly. (From Geymüller.)

Lescot (1510 1578) takes an exceptional position because by design-
ing the famous façade of the Louvre he created a supreme type which
was the culmination of the
first phase of pure French
Renaissance.   His association
with the greatest sculptor of
the Renaissance, Jean Goujon,
certainly helped to give a per-
fection of detail to his design
that it might otherwise have
lacked.   The work was begun
in 1546.   Only the main wing
(which was to have formed
the end of the square court)
was completed, and part of
the south wing.   The system
is given in Fig. 727 and the
central Pavillon de l'Horloge

731—Tomb of Francis I at St. Denis, by Philibert
de l'Orme (1550). (From Palustre.)
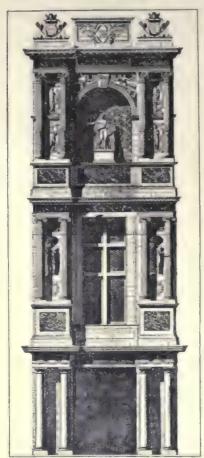
in Fig. 728. It is regarded by Choisy as the most perfect embodiment of the orders in a façade, with the single exception of the Palazzo della Cancelleria in Rome. It is distinctly a personal creation. Compare with it the two systems of rhythmic supports in the court of the chateau of Le Pailly (Figs. 729, 730), an extraordinarily interesting precursor, in some ways, of Barocco. It is important to remember that even at Fon-

tainebleau and Blois the classic orders had been used most unconventionally and without submitting them to modular proportions. It was a style quite without accepted norms. Only toward the close of the reign of Francis I was a more scientific method introduced which led to regularity and to the adoption of a modulus or canon. This was the second Renaissance. Choisy sees signs of it at Ecouen, and a preliminary application at Ancy-le-Franc, with its culmination toward 1540 in the Louvre of Lescot.
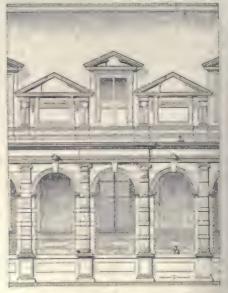
732—La Tour d'Aigues, entrance. (From photo.)

Another great leader, practically contemporary, was Philibert de l'Orme, whose activity coincides largely with the reign of Henry II. He was even more famous as a theorizer and writer than a builder. He professed to have invented a French Renaissance column. His two monumental writings were *Le Premiertome de l'Architecture* (1567) and *Les nouvelles inventions pour bien bastir* (1571). His tomb of Francis I at St. Denis (1550) shows masterly design (Fig. 731). It is interesting to compare this adaptation, in miniature, of the scheme of a Roman triumphal arch with the unique adaptation of quite another

733 Main court entrance, Chateau of
Anet, now at Ecole des Beaux Arts.
(From Daly.)

734—System of the Tuileries. (From Choisy.)

and more monumental character
at La Tour d'Aigues (Fig. 732)
in the South. The decorative
and coloristic value and the ex-
traordinary individuality of de
l'Orme's style can be seen in the
entrance to the Chateau of Anet
in Fig. 733. The destruction of
his masterpieces, the chateaux of
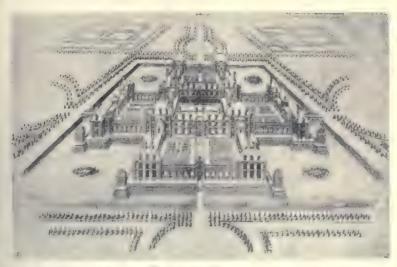
735 Façade of the Tuileries, Paris. (From Havard.)

736—Ball-room at Fontainebleau. (From Sadoux.)

St. Maur (1546) and Anet (1552) and of the Tuileries, makes it difficult to give him full credit. The Tuileries (Figs. 734, 735) was in his later manner (1564). It takes a step backward in purity of design when compared with the Louvre.

737—Projet of du Cerceau for a pleasure house. (From Geymüller.)

Another prominent architect was Jean Bullant, who worked at Ecouen and the small chateau of Chantilly, which illustrates the reprehensible feature of the roof-line intersected by the second story windows. Gilles le Breton was responsible for a large part of the work at Fontainebleau between 1527 and 1552. The fact that in this chateau the exterior is far inferior to the interior, both in line and detail, is illustrated by the ball-room in Fig. 736.

Last of the galaxy is Jacques Androuet du Cerceau, whose numerous drawings are famous. In his *Les plus excellents bastiments de France*, issued in 1576, he has preserved records of numerous chateaux now destroyed or renovated and gives schemes never carried out. He shows how frequent were the architectural dreams on a colossal scale, such as Pierre Nepven, carried out at Chambord. A *projet* for a pleasure house by du Cerceau is given in Fig. 737.

We may now turn again to private architecture and local schools.

To study private architecture of pure early

738—Orleans: House of Diane de Poitiers. (From *Monum. Hist.*)

Renaissance, of the François I type, one should go first to Orleans. Tours and Toulouse are, of course, other important centres, but the latter has a lack of unity through its use of brickwork, and the former has a richness that is sometimes overloaded.   For its mansions Orleans is the Venice of France.   Out of its wealth of material the examples that are here used have been chosen to represent each important variation in design of the school.   The simplest *motif* is that of the house in the centre of Fig. 150. Its windows have no frame or crown; neither has the façade as a whole. A richer type is the house of Diane de Poitiers, where the division by pilasters, architrave and cornice is complete, and curved gables are used in the middle story (Fig. 738).   In Fig. 739 there are variants that enrich the design: the strengthening of the mullions, the substitution of arches for architraves on the main floor, the coupling of the end pilasters to frame miniature openings,· the

739—House at Orleans.   (From *Monum. Hist.*)
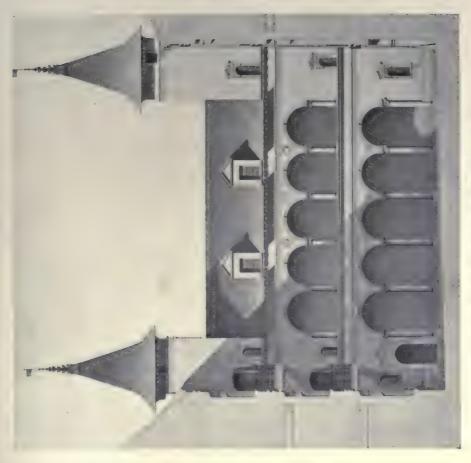
grouping of the lower openings, the domination of wall space.   A further enrichment of the façade design appears in Fig. 740, where the body of the house on the left is treated as a double panel enriched with medallions and an enclosing arch is substituted, Florentine-fashion, for a gable.   By exception, also the mullion cross is eliminated. This design has more unity than any of the other Orleans types.
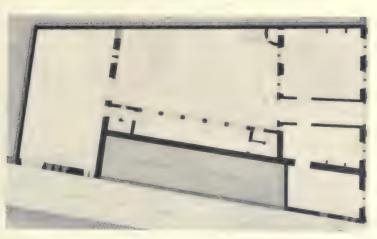
The courts of these Orleans houses are even more remarkable than their façades when their relatively small scale is considered. That of the so-called house of François I shows in Fig. 741 the irregular narrow plan that was so common in France. The simplicity of the arcaded part in Fig. 742 makes it clear how this school was able to depend at times for its effects entirely upon its extraordinary sense of proportion and its rhythmic treatment of detail. That this sense was flexible and not the result of inflexible ratios appears in the other even smaller court of the house of Diane de Poitiers (Fig. 743), the façade of which was just described. This court stands almost at the opposite pole both in the matter of decorative richness and in the dominance of vertical instead of horizontal lines. One may say that this school of Orleans was the home of purism without puritanism of style in the time of Francis I. It remains national even while conforming almost on every point to Italian models. Quite another form of the

740—House at Orleans. (From *Monum. Hist.*)

742—Orleans: House of Francis I. (From *Monum. Hist.*)

741—Plan of house of Francis I at Orleans.
(From *Monum. Hist.*)

743—Orleans: House of Diane de Poitiers. (From *Monum. Hist.*)

Francis I manner appears in the Maison François I transferred to Paris and given in Fig. 744. There is less restraint, a greater diffusiveness in the ornamentation and an original treatment of the openings, especially in the triple division of the upper windows, the breadth of the three arcades and the emphasis on the horizontal lines. It belongs to the type of pleasure-houses.

This leads on to Tours, which was the centre of perhaps the most important school of early French Renaissance sculpture. Here, as we might expect, the decoration is profuse. In the court of the Hotel Gouin (Fig. 745) the effect is less of relief work than of lace-work or perhaps embroidery on a plain surface. The

744—Maison François I in Paris. (From photo.)

dormers have Gothic reminiscences, especially in the crockets, and we are reminded of the chateau of Chemazé. Beside the three-storied *perron* porch perhaps the most interesting and rare feature is the extremely wide frieze above the second story with scroll-patterns which in certain parts are so classic as to remind of Roman works like the Ara Pacis of Augustus. In the whole matter of the reproduction of classic details of this sort it must be remembered that the central, western and southern provinces of France had no need to look to Italy for models of decorative work of the best imperial period. They were full of their own, facing them on every side. This southern school has a curiously rich and florid decoration which anticipates the Barocco. In the façade of the chateau of Usson near Issoire, which dates from c. 1550, there is the evident influence of the Lombard school, especially of the Certosa, but the lack of restfulness and symmetry gives quite a non-Italian impression and brings to mind the restlessness of the Romanesque sculptures of Auvergne and Burgundy. Another castle,

further south, at Assier in Languedoc, partly of the time of Francis I,
partly later, while equally rich in its plastic decoration of surfaces
and reminiscent of North Italian models, is better composed.

745—Hotel Gouin at Tours.   (From photo..

The wars of religion practically interrupted all architectural pro-
ductivity during the latter part of the sixteenth century and made it
easier to introduce new forms when work was resumed in the early
seventeenth century. Of course, old modes were continued.

Barocco and Rococo.—In France it was the Jesuits who were in fact mainly responsible for the introduction of Barocco. One of their members, Martel Ange († 1642) built the Lycée Charlemagne and the churches connected with it, of which that of St. Louis re-sembles so strongly the Gesù in Rome. Even in the individual work of Lemercier we find this element of Roman Jesuitic Barocco, espe-cially in his façade of the church of the Sor-bonne in Paris(1635–59). This church is particu-larly interesting for its introduction into France of the central dome so characteristic of Italian design. This applies particularly to the im-portation of the more purely Italian forms. There was, on the other hand, an earlier aspect of what might almost

746—Chateau of Assier.   (From Lübke.)

be called a national French Barocco as early as the reign of Henry IV. It was only under Henry IV and Louis XIII in the seventeenth cen-tury that the process of Italianizing was carried so far in church archi-tecture as to lead at last to the adoption of the typical Italian Barocco façade of Vignola and his successors and to the use of the dome in the place of more or less medieval vaulting. It is true that before this time the dome had appeared in the place of spires, but not for the transformation of interiors. The epoch-making façade was that designed in 1616 for the church of St. Gervais in Paris by Salomon des Brosses. It will hardly be denied that the Frenchman's design is superior to his Italian models in sobriety, symmetry and logic. The use of three stories with the different orders in this form is unusual; the lightness is accentuated by the large central window with the open space behind. One has only to turn to the façade of St. Pierre at
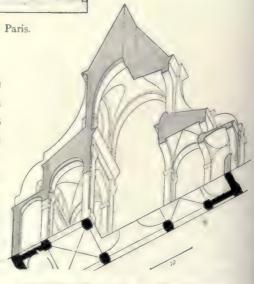
747—Section of the Invalides, Paris.
(From Geymüller.)

Auxerre to see the national source and the Gothic origin of this central part of the scheme. This façade of St. Gervais had many imitators, as in the case of the Feuillants by Mansard, also in Paris. In other cases, especially later, as at St. Roch (1738), the architect turned directly to Italian sources, especially Vignola.

In regard to domes, none of importance previous to the middle of the seventeenth century appears to have survived, for we can hardly class as such the little church of the Visitation in the Rue St. Antoine. The church of Val de Grâce, the Invalides and the church of the Sorbonne are all practically contemporary, and all with a single central dome raised on a high drum. The latest and best designed is the dome of the Invalides (1670–1692), by Mansard (Fig. 747). Its widespread reputation is due rather to its lines than to

748—Saint Sulpice, Paris. (From Choisy.)

its construction. The old French verticality still prevails, leading Mansard to lengthen his drum and to divide it into two sections, with very pointed outline to the outer dome. The great height is secured in an unusual manner, as can be seen in the section in Fig. 747.

Before the Invalides, however, came what is the masterpiece of ecclesiastical designing of the age of Louis XIV, the church of St. Sulpice in Paris. It is a cold, dry, scientific structure, with an interior dwarfed by enormous windows, whose lunettes intersect the tunnel-vault of the nave. Its system appears in Fig. 748. Begun in 1648, it was not completed until after 1718.

Turning now to civil architecture, a splendid piece of Barocco under Henry IV is the Hotel de Ville in that staunch Huguenot town La Rochelle (Fig. 749). It is powerful and original. The low basement has a gallery which rests on squat, rugged Doric columns heavily banded in couples, connected by a narrow arcade, while between each

749—La Rochelle: Hotel de Ville. (From Gurlitt.)

couple are two arcades with pendant *tas-de-charge*, as in the windows of some palaces at Bologna (see Italy). The interior (Fig. 750) with its low transverse arches is effective. In contrast the main story above the Doric frieze is singularly graceful, with niches framed by Corinthian columns corresponding to the Doric pair below. The glass area is unusually large; over the rich frieze and cornice a third story of dormers again verges on the fantastic with its broken gables. The composition is a special version of the Palladian type of rhythmic

grouping; how unusual can be seen by comparing it, for instance, with the Hotel d'Ecoville at Caen, or the chateau of Ancy-le-Franc. The architect seems to have been a Huguenot and to have built it between 1587 and 1607.

France had also her national pre-Rococo before the introduction of the Italian form. Before its ground-floor was ruined in 1836 (it had two windows joined by a vase) the house in the Rue des Forges at Dijon (Fig. 751), originally a wing of the Hotel Chambellan, must

750—La Rochelle: Portico of Hotel de Ville. (From Gurlitt.)

have been a perfect example of Rococo. Even as it stands it is a richly dramatic piece of that type of realism, with festoons, lion heads, pendants of fruits and flowers, vases, wreaths, fantastic and broken gables. It dates from 1561, and so is quite early in the movement. But, even before this, the movement that was sapping classical purity had added Rococo to Barocco elements. In about 1554 (Fig. 752), the Maison des Têtes at Viviers on the Rhone shows how in the South there was not the restraint that one sees at this time in the region of the Loire. The orders are still in use and prominently so,

but note the curious cross-division of the windows, the rococo ornamen-
tation under the lower architrave, and that on the upper story with
the three caryatids. We have already noted this floridity of the
South in connection with
the chateau of Usson.
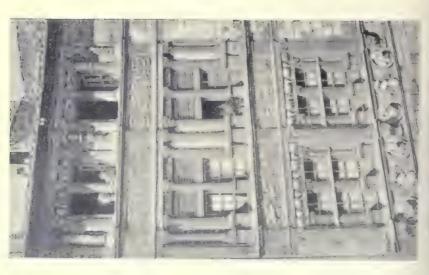
It was only after the
death of the Grand Roi, in
1715, and the rise of the
Regency that the Rococo
in its purely Italian form
obtained a firm footing in
France for its fantastic
decorative designs; it cer-
tainly suited the arti-
ficiality of contemporary
French taste. Its pictorial
qualities made it appeal to
artists like Watteau and
Boucher, and it affected
details rather than general
structural design. A case
where it did assert itself
architecturally is, for ex-
ample, in Meissonier's
unrealized design for the
façade of St. Sulpice
(1726). By him also is
the Maison Bréthous, near
the Pont St. Louis, a small
but perfect embodiment
of the style—all curves
and sinuosities. It is curi-
ous that the actually con-
structed façade for St.
Sulpice (1733–49) by the
Tuscan Servandoni should

751—Dijon: House in Rue des Forges.   (From photo.)

have marked the swinging of the pendulum toward neo-classicism, in
a style almost as markedly severe, except for the flanking towers, as
Meissonier's design had been consistently Rococo. Servandoni's work

753—Hotel Lambert-Thorigny. Paris. (From photo.)

752—Viviers Maison des Têtes. (From Gurlitt.)

formed the starting-point for the Louis XVI style, which was to pre-
pare the way for the neo-classic revival.

It must not be forgotten that the tradition of pure classicism was
never submerged in France by this flood of Barocco and Rococo;

754—Court of the Exchange at Lille. (From photo.)

when neo-classicism came it found a living trunk on which to graft a
stronger branch of neo-hellenism. This is illustrated in Paris by
the Hotel Lambert-Thorigny (Rue St. Louis), begun in 1640 by Levau,
with a classic façade to its court, the centre of which is given in Fig.
753. Even where Rococo elements are quite strong, in the North
especially, there is often a classic restraint, as in the Exchange at
Lille, which dates from 1651 (Fig. 754).

CHAPTER II

D URING the Gothic era Spain had shown herself most suscep-
tible to foreign influences. France, and to a lesser degree
England and Italy, had furnished artists or models for works
only slightly tinged by local characteristics, even though the main cur-
rent remained national. But just when we might expect Spain to open
her doors in the same fashion to the new Italian style we find her mak-
ing artistic discoveries on her own soil. She became enthralled by her
new familiarity with the marvellously rich products of Moorish art with
which her conquests, culminating in the fall of Granada in 1482, had
brought to the closer notice of her Christian artists. We have already
seen how this resulted in a hybrid Moresco-Gothic which corresponded
to the Flamboyant Gothic of the rest of Europe and satisfied the cur-
rent craze for the bizarre and the ornate. It was a parallel development
to the even more florid Manoelino style which grew up in Portugal at
about the same time. The final stage is termed *Plateresque* and ruled a
large part of Spain between about 1500 and 1550, which was the period
of transition to Renaissance forms. This name is derived from the
Spanish name for a goldsmith, *platero*, because the character of the
tapestry-like and rather inert ornamentation is true to the art of its
founder, a goldsmith named Pedro Diez, who went to Rome and re-
turned after 1458 to Toledo, where he influenced the art of the Egas
family, then among the leading architects of Spain.

This brings in the element of Flemish influence, because the Egas
family came from Brussels to Spain in the latter part of the fifteenth
century, with other Flemish architects, and furnished several genera-
tions of prominent artists who, after practising pure Flemish Gothic,
were won over to the Renaissance. Other artists came from Germany.
This was fostered by the international character of Spain's political

relations under Charles V and Philip II.   Their persecution and expul-
sion of the Moors helped to eliminate the Moorish element from art.
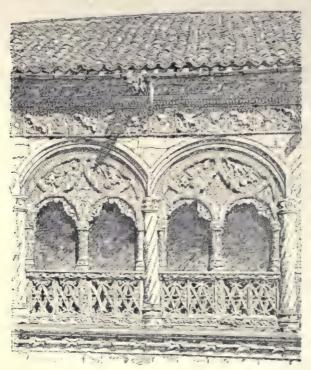
A typical transitional work is the group of doorway and windows
forming the entrance to the Hospital of Sta. Cruz at Toledo (1504),

755—Toledo: Entrance of Hospital of Sta. Cruz.   (From photo.)

which shows (Fig. 755) a much larger percentage of classic forms than
the other and earlier College of Sta. Cruz at Valladolid (1480-1492),
also by Enrique de Egas.   There is a persistence of the Gothic in the
archivolts and the statues under niches and in the tympanum.   Other-

wise the work gives the impression of much later date, with its baluster columns, its twisted shafts and broken lines of Barocco work.

756—Upper gallery, cloister of San Gregorio, Valladolid.
(From Palustre.)

Plateresque works with hardly any infusion of Renaissance built at this time are S. Pablo at Valladolid and Sta. Cruz at Segovia and the charming cloister of S. Gregorio at Valladolid (Fig. 756). The peculiarity of Enrique de Egas and his family seems to be that they practised indifferently three manners. For the more monumental cathedrals, as at Salamanca, the simpler Gothic forms were continued; or else, as at Granada, an almost pure classicism was finally adopted. For minor works the Plateresque with Renaissance infiltrations was developed. Palustre cites an interesting case of this eclecticism. A native Spanish architect, Diego de Riano (1526–1564), maitre de l'œuvre of the cathedral of Seville, made two sets of drawings for a new sacristy: one was in the current Gothic, and the other in the Italian classic manner. He submitted both to the Committee of the Fabric and the Gothic was given the preference. He showed his versatility by designs for a chapter-house in an even more classic Greco-Roman style, and by the façade of the Town Hall at Seville, which has great analogies with the style of Francis I in France, Diego de Riano showed himself to have the finest sense of pro-

757—Corner of Town Hall, Seville. (From photo.)

portion of any of the Spaniards who intro-
duced the purer forms of Renaissance (Fig.
757).

There are numerous transitional works
which show the Moorish or Mudejar forms
instead of or together with the Plateresque,
with Renaissance modifications.   A very rich
example is the court or patio of the In-
fantado palace at Guadalajara (Fig. 758)
with classic columns in the lower story.
This form of late Gothic form of the re-
versed depressed pointed arches with heavy
decoration has been noticed in Germany in
the façade of the house at Bruck in Fig. 816.

758—Patio of Infantado Pal-
ace, Guadalajara.   (From
photo.)

FIG. 759—Guadalajara.   Palo et Infantado.

760—Patio of Casa de las Conchas,
Salamanca.   (From photo.)

Dieulafoy has very justly noted in-
stances of the influence of the
Plateresque and Mudejar styles in
Germany and Southern France.

The façade of the palace, with its
weird decoration of shells, is not
unique (Fig. 759), but is paralleled in
the Casa de las Conchas at Salamanca,
whose court (Fig. 760) it is instructive

761—Patio of the College of Santiago, Salamanca. (From photo.)

to compare with that of Guadalajara as show-ing a further advance in the transition. The court of the university building at Salamanca has a lower arcade slightly heavier but of the same design. The façade of the university is pure Plateresque without Renaissance. It was in Salamanca itself, only a few years after the construction of these remarkable patios, that the architect Pedro Ibarra, influenced probably by Berruguete, introduced the pure classicism of the early Renaissance (Fig. 761). It was in 1520 that Alonso Berruguete returned to Spain after a residence of over fifteen years in Italy, where he came under the influence of Bramante and Michel-Angelo. He was a sculptor and decorator, but there is no doubt that while he coöperated with Ibarra in the construction of the Santiago College at Saragossa only as a sculptor, he proba-bly determined the style of its architect, Ibarra. The influence of the Cancelleria palace and of the court of S. Maria della Pace is evident. Plateresque survivals are the depressed arches and engaged shafts of the second story which contrasts with the

762—Patio of Casa de Miranda, Burgos. (From Dieulafoy.)

763 —Casa de los Picos, Se-govia. (From photo.)

delicate purity of the lower floor. Another way of passing from Plateresque to classic is shown in the patio of the Casa de Miranda at Burgos, where both stories have architraves and the capitals have supplementary wing-like volutes (Fig. 762).
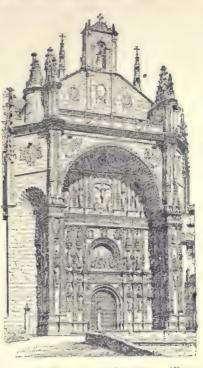
At Segovia the Casa de los Picos (Fig. 763) is usually called Plateresque, but it is merely the Spanish form of the North Italian diamond-shaped prismatic bassing which is seen in such buildings as the Palazzo dei Diamanti at Ferrara and the Palazzo Bevilacqua at Bologna, built slightly before 1500. (See Italy.) A

came toward the close of the style, the façade of the Cathedral of
Murcia. This is because an inroad of neo-classicism has modified the
usual extravagance and given a rather dramatic framework and some
good minor lines in the details. Its designer's name was Jaime Bort,
in the first half of the eighteenth century. Another and earlier façade,
that of San Domingo at Salamanca, has almost equal dramatic value
with the great arcade of its overhanging crown, reminding of
S. Andrea, Mantua, with the addition of a wealth of sculpture borrowed

from Lombard models. It shows that
the general type of the Murcia façade
antedated in Spain the rise of Barocco
(Fig. 773).

Jose Churriguera was appointed
royal architect by Charles II and
through his sons and his pupils, the
Quinones, he dominated Spanish archi-
tecture while the Barocco craze was
at its height: But the masterpiece of
the Quinones, the Plaza Mayor of
Salamanca, which is relatively simple
and clear in the lines of its arcades
and commonplace windows, shows
how the decorative elements of the
stage immediately preceding Chur-
riguera were gradually sloughed off.
The elder Churriguera can be studied
in San Cayetano at Madrid.

There now comes a break. In fact
the death-knell of national architec-
ture was sounded by two invasions

773—S. Domingo, Salamanca. (From
Palustre.)

of foreigners during the first half of the eighteenth century. Philip
V called French artists to build the palace of San Ildefonso and other
buildings and Italian architects to rebuild the Royal Palace of Madrid
after the fire in 1734. Juvara designed it but Sacchetti built it, begin-
ning in 1737. The style was Italian of the type current in the Barocco
period.

CHAPTER III

WHEN Portugal became aware of the new forms, her archi-
tectural activity was about to decline after the brilliant
efflorescence of the hybrid Manoelino style, through-
out whose brief career an undercurrent of Renaissance decorative
work was penetrating everywhere, especially in church furniture: in
pulpits like the masterpiece in Sta. Cruz at Coimbra; in altar-pieces
such as that in the cathedral at Coimbra; in tombs like that of the
bishop of Funchal in Sta. Maria at Thomar. It had crept also into
minor forms of architecture; as in the chapel of The Magi at São
Marcos. The invasion was due primarily to Frenchmen and only
secondarily to Italians and Flemings. This was between 1520 and
1550.

In considering the architectural transformation itself it stands
out clearly as a unique fact that a dominant part was played not only
by one man but that this man was the same architect, João da Castilho,
who had done so much to mould the Manoelino style itself. We
have seen him at Belem, Alcobaça and Batalha, mingling realism and
rampant vegetable forms with occasional Renaissance motifs, especially
in Sta. Cruz at Batalha. But it was when he was put in charge of the
great constructions of the monastery at Thomar in 1528 that he
suddenly passed, bag and baggage, into the Renaissance camp—under
what circumstances we do not know. There was a nucleus here of
older buildings, beginning with the circular Romanesque church of
the Knights Templar, whose Portuguese centre this was. When the
Knights of Christ were turned from warriors into monks in 1523 the
new buildings were planned, including a block over 300 ft. square,
with five cloisters, with chapels, corridors, refectory, dormitories,
etc. This forms the fourth of the large monastic groups in Portugal.

The design for the whole scheme is attributable to João da Castilho, though the latest and most magnificent of the cloisters, the Claustro dos Filippos, was not built till after his death. In Fig. 774 is the south portal of the church, the most exquisite among transitional works from Manoelino to Renaissance, though only the inner band around the doorway is pure Renaissance. Its date is c. 1525–30. In the windows of the chapter-house, the exterior of which is given in Fig. 775, we can study the tendency of native Renaissance—that is, the Portuguese form of artistic natural-

774—S. Door of Convent, Church of Christ, Thomar. (From Watson.)

775 — Window of Chapter-house, Thomar. (From Watson.)

ism of most peculiar character. A bold columnar frame is covered with leafage and within it are window jambs of coral. The head is formed of a twisted wreath from which hang two rope hoops: other smaller rope hoops are bunched, hung at different points, and there are branches bound to the main frame by chains. It is altogether a fantastic riot, which is repeated in the interior of the chapter-house in another window and doorway where tree-trunks are even more naturalistically treated and with the same thistle heads. Similar plant realism had appeared in João da Castilho's earlier door for the sacristy at Alcobaca (1518); but he

776—Thomar: Claustro dos Filippos. (From Watson.)

showed more Renaissance feeling in the west door of Sta. Cruz at Batalha. In the cloister at Belem, illustrated under late Gothic in Fig. 294, the pilasters were added at this time in quite a different style—in pure Italian Renaissance. A modest early example of pure Italian work of c. 1525 is Nossa Senhora de Graça at Evora.

Returning to Thomar, we find that after the first few years, between about 1523 and 1530, when this hybrid manner was employed by João da Castilho, he began some time after 1528 to put up cloisters, corridors and chapels of classic Renaissance. There is in particular a charming chapel of 1533 with Corinthian pilasters and richly carved surfaces of classic style. Still more exquisite is another chapel, that of the Concieçao, with aisles separated by Ionic columns and architraves. In charm and delicacy it is comparable to early Italian work. The annexes to the Claustro dos Filippos, while also classic (except the vaulting), are heavier and simpler. A detail of this cloister is given in Fig. 776. It recalls Palladio's Basilica at Vicenza.

Soon after, and before 1580, the interior of the Marvilla church at Santarem (Fig. 777) illustrates the same style of simple delicacy and harmony, with slender Corinthian columns, high wide arcades and a hall-like effect. One can judge somewhat of the Thomar chapels from this in-

777—Santarem: La Marvilla. (From Watson.)

terior.   Equally Italian but less Tuscan
than Roman is the cloister of the cathe-
dral of Vizeu in Fig. 778.   Between
such work and the Manoelino style the
contrast is dramatically absolute, espe-
cially where the two stand side by side as
at Thomar.

There is another interesting juxta-
position or quasi-evolution in the impor-
tant detail of the ceilings both of churches
and palaces, which were always a special
feature of Portuguese art.   Here the
tradition which Renaissance designers
encountered was not Gothic but Moorish.
The curved outlines used in the earlier
work, as illustrated in the original ceil-
ing of the Royal Palace at Cintra (Fig.
779), reappear in ceilings of Renaissance
design like that of the Sala dos Cycnos

778—Vizeu: Cloister of cathedral.
(From Watson.)

in the same palace (Fig. 780).   The traditions which produced the
wonderful polychrome and carved and inlaid Manoelino roofs such as

779—Cintra: Chapel roof of palace.   (From
Watson.)

that of the cathedral of Funchal,
Madeira, were continued.

Then, in 1580, Portugal lost
her independence by annexation
to Spain.   This gave almost a
deathblow to her art, which lapsed
for nearly three centuries into
comparative mediocrity illu-
minated by flashes of native wit
and originality.   At first, how-
ever, one must reckon with a
strong imported personality, that
of the Italian architect Terzi,
backed by the Jesuit order.   To
him were due four churches in
Lisbon itself: S. Roque,   S.
Antao, S. Vicente and Sta. Maria
do Destero, all with central domes

780—Palace Cintra, Sala dos Cycnos.

and all ruined or badly damaged by the earthquake of 1755. The view in Fig. 781 of the interior of S. Vicente shows a successful treatment of tunnel vault and dome, with coupled pilasters, that is purely Italian. At the intersection a curved wooden ceiling replaces the dome, which was thrown down by the earthquake. Terzi's work was mostly between 1578 and 1598 and he formed a native school which can best be studied in the churches at Coimbra, especially that of the Jesuits, now the cathedral.

The impoverishment of the country under Spain prevented the adequate execution of several extremely original and clever designs such as the Misericordia building at Viana, with its double gallery of Egyptianizing caryatids, the architraves; or the church and circular cloister with Ionic colonnade of Nossa Senhora do Pilar, Oporto (1602). They are marred by crudity. The use of Ionic was unusual, as since Terzi's advent Doric had ruled, either pure or composite.
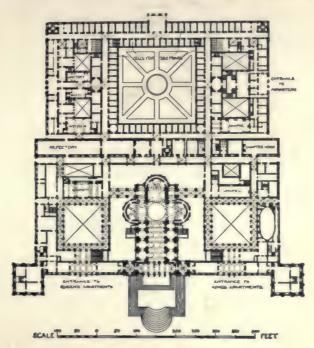
The revolt of Portugal in 1640 and the long war that followed prevented artistic development, until it had attained success which

781—Lisbon: S. Vicente.

brought with it a revival of over-sea trade and renewed wealth.   Then
came what was the largest architectural undertaking in Portugal just
before modern times: the monastery-palace of Mafra was connected with
the political fortunes of the country very much as Alcobaça and Batalha
had been.   It crowned the success of the war for her independence
from Spain and was built in emulation of the Escorial, which it equals
in size.   It was begun in 1717 and its architect was not a Portuguese
but a German named Ludwig.   Its plan is given in Fig. 782, as it is
among the most elaborate of its age.   The royal palace occupies the

782—Plan of Monastery of Mafra.   (From Watson.)

front half, on either side of the church; and the monks were placed in
the rear around a large court.   The style is in a thin and plain classic
manner, substantially Italian, which harks back to sixteenth century
models.   The interior of the church, which is 200 ft. long, has excellent
lines, though it is hardly comparable to São Vicente de Fora.

    After Mafra there was again almost complete sterility.   The
destruction of Lisbon by the earthquake of 1755 almost obliterated
a part of Portuguese architectural history.   In the basilica of Estrella
at Lisbon (1779–1796) the influence of the Mafra church is evident:

a tower-like dome on a high drum and two heavy façade towers. The only oasis in the desert is an occasional interesting use of Rococo design. The Quinta Freixo—a mansion just above Oporto—is an in-

783—Palace at Braga.   (From Uhde.)

stance of the villa type: a palace at Braga, given in Fig. 783, shows as charming a use of the Rococo lines for a city house as one could find anywhere, with harmony in the smallest detail. The central group, in its three stories, is worth detailed study. A more simple example on a larger scale is the royal castle of Queluz (c. 1785).

CHAPTER IV

THE same broad and heterogeneous territory is here treated as
under the "Gothic" caption, but whereas a considerable
amount of unity, or at least of interrelation, was reached in
the Gothic evolution, the same cannot be said in the least of the
Renaissance aspect of German art. For one thing, its intrusion—
as we might fairly term it—was comparatively brief: hardly more
than a century—even including Barocco works—as compared to the
almost four centuries of Gothic domination. Its structural basis,
as established in Italy, was not understood or followed; nor were its
laws of proportion or its norms of decoration and purity of style.
The effect of the Renaissance was here, in fact, more destructive than
constructive. Germany had grown to love Gothic with an increased
pride in her mastery of its technique, both constructive and decorative.
She had quite outdistanced France in the magnificence and quality
of her late works, those of the fourteenth and fifteenth centuries.
Therefore she was by no means as ready as France to assimilate the
new forms. When Pope Pius II, in the middle of the fifteenth cen-
tury, called the Germans the greatest mathematical, i. e., constructive,
architects, he was voicing a general opinion.

Another reason for the delay was the difference in the relative
importance given at this time to civil and religious architecture in
Germany as compared with France. In Germany church building,
which was the stronghold of Gothic, remained supreme until the
sixteenth century was well advanced, and from this field Gothic
was not really expelled until the importation of Barocco forms by the
Jesuits in the seventeenth century. As a matter of record it is sig-
nificant that the earliest frank use of structural Renaissance forms is
perhaps to be found in the crowning octagon and spire of the tower of

St. Kilian at Heilbronn, which is otherwise pure Gothic. Its date is
1513–29 and its designer was a German, Hans Schweiner. It resembles
Lombard Towers in the province of Milan, and like them has persistent
Romanesque elements. Its engaged shafts with broken lines and its bal-
usters are clearly Lombard. A work of larger scope is the palace of
Nuremberg called the Tucher house, built probably between 1515 and
1530, when Renaissance detail first appears in this city. Except for its
gable end it strongly resembles some of the simpler works of French
Renaissance, while it retains Gothic features in its windows and
staircase tower. It is a transitional work of genuine artistic value.
The interior is in almost perfect preservation, with beautiful woodwork,
and with the same combination of Gothic and Renaissance details.

In this connection it may be said here that decorative forms were
introduced from Venice into Augsburg a few years previously, about
1510 or 1512. This was done principally by two great artists—Hans
Burgkmair and Hans Holbein the elder. In treating somewhat
later of German decorative work, this rôle of the Augsburg school
will be again referred to. It has little direct value for architecture,
notwithstanding the early date of the Fugger house, whose chief inter-
est lies in its paintings. The protagonists of the new forms were not
architects: they were literary men—the humanists—and they were
artists in other fields: engravers and painters like Albrecht Dürer,
Hans Burgkmair and Holbein, or sculptors like Peter Vischer. These
masters made a splendid beginning in decorative work and realism,
but had no worthy followers and no corresponding geniuses in the
domain of architecture. The most striking characteristic of the
subject of this chapter, for these various reasons, is the impossibility
of the historian furnishing a real conspectus, an articulate framework,
a coördinate picture. There are only *disjecta membra*, unrelated
atoms that form a patchwork. Renaissance forms were never assimi-
lated to the national genius. We cannot profess to find any special
schools of German Renaissance and Barocco, nor any historic evolu-
tion within Germany. All that we can do is to catalogue buildings
and characterize them and at most assign them to groups.

There are three main groups: (1) buildings built by Italians who
came to Germany or by Germans who were slavish imitators; (2)
buildings that were inspired, though not slavishly, by Italian models;
(3) buildings where Renaissance forms were subordinate to or applied
upon Germanic forms handed down from the Middle Ages.

It is also important to note from the outset that, as no buildings of any consequence in the new style were built until between 1530 and 1535, and as Barocco forms were introduced as early as 1560 and took the place of the Renaissance almost entirely before 1590 or 1600, there was less than a half century of real Renaissance. The first of these groups is relatively small and confined almost entirely to the southeast of Germany; that is, to parts of Austria and in particular to Moravia, Hungary and Bohemia, Carinthia, and to Vienna itself. The reason why this group did not assume greater importance nor radiate a stronger influence is because the Italian artists who designed or executed them were second-rate men, men inferior to those who took a corresponding position, somewhat earlier, in France. The men whom we know as connected with some of these works in Austria, that is Jacopo and Antonio da Spazio and Paolo della Stella, whose activity here during the middle part of the sixteenth century led to the establishment of the nearest approach to a school with which we are acquainted, were men of indifferent reputation in their own country. Probably the only Italian architect of any reputation called to Germany was Scamozzi of Vicenza and Venice, who came in 1614, at the Emperor's request, to work on the Hradschin Palace at Prague. During the next decade (1621–29) another northern Italian built the great Wallenstein Palace, also in Prague. It is, in fact, in Prague

784—The Belvedere at Prague. (From Palustre.)

that one can best study pure Italian work, beginning with the Belvedere of the Imperial Palace (Hradschin), built by Paolo della Stella in 1536. It is a pleasure house in the park, surrounded by a colonnaded Ionic portico of five and thirteen arcades, which has been compared to that of the Basilica of Vicenza by Palladio. Its proportions are charming, and everything about it is purely Italian (Fig. 784). Also in North Italian style is the hunting-seat of Stern near Prague (1565) and the Porzia Schloss, a castle at Spital on the Drau, with an interesting arcaded court and stairway in almost pure Venetian style. For the next century, the charming Loggia of Wallenstein's palace at Prague (Fig. 785), already mentioned, which was built by Marini in 1629, is a good instance of the coupled

785 –Loggia of Wallenstein Palace, Prague.
(From Leger.)

colonnade that came into vogue in North Italy for pleasure houses after the building of the Palazzo del Tè. The Rosenburg Castle near Eggerdorf, and the Schloss Schallaburg near Mölk, on the other hand, while under Italian influence, have a considerable Germanic flavor. Passing now to other provinces, if we include in Germany the German part of Switzerland, there are some examples of pure Italian work to be noted, especially in Basel and Zurich, where there are charming guildhouses: notably the Gelten-Zunfthaus in Basel (1578), with its three stories each framed by an order. To a less perfect degree the semi-rusticated Italian style is reproduced in the Town Hall of Lucerne (1601).

In northwest Germany the centre of activity for work that follows Italian models most closely is Cologne; in central Germany it is Nuremberg. Hardly anything produced by these groups of architects can be ascribed to Italian hands. A pupil of Sanmicheli, Antonelli of Mantua, designed, it is true, the court of the palace of Landshut, which is in pure Italian style of the middle sixteenth century. But this is almost an isolated example (Fig. 786). In the two-storied Loggia of the Town Hall of Cologne (Fig. 787), a German architect, Wilhelm Wernicke (1569–71), has shown complete mastery of the North Italian

786—The Residenz Palace, Landshut. (From Fritsch.)

forms of the Middle Renaissance. It is one of the few really exquisite pieces of Renaissance design in Germany: quite Sansovinesque and reminiscent of the Libreria Vecchia in Venice. It seems a matter of indifference that the upper arcade is slightly pointed. The Nuremberg school was less pure, more eclectic, yet never descending to tastelessness. The palaces of its wealthy merchants in some cases, as in the Topler house, followed French models. The Rathaus, in its monumental court, follows the simplest Italian models of the Roman school of the middle sixteenth century (1610). Then, again, the architect of the sumptuous Peller house (1605) adopted one style for the

787—Portico of the Rathaus, Cologne. (From photo.)

façade on the street and quite another for the long narrow court, with
three stories of broad, low arches of decided originality. The street
façade has the inevitable stepped gable with volutes and shell-tym-
panum: its only notable point is its masonry of rusticated blocks.
But these last works belong to a slightly later period than we are now
concerned with, and the rest of Germany must first be studied for its
earlier works; Saxony and Silesia stand alongside of Augsburg, Cologne
and Nuremberg in their early work. The old Castle of Dresden must
have been built soon after 1530 with a decorative scheme borrowed
from Lombardy, while its vaulting system remained Gothic. Its few
remains—especially the rich doorway "Georgsthor" (Fig. 788)—are

an almost exact replica of
work at Como Cathedral
and of Lombard work be-
fore 1500. But, as the
structural principles of the
new art were not adopted,
neither was its system of
proportions. This is evi-
dent also in other early
works, such as the Castle
of Dippoldiswalde.

The better preserva-
tion of the castle at Brieg,
built in 1552, gives a
much clearer idea of this
early Saxon Renaissance.

788—The "Georgsthor" of the castle, Dresden. (From
Bezold.)

In it the dependence on the Lombard school of Brescia and
Pavia is evident. The third story of the portal, of which the base
only is given in Fig. 789, is like the second except for its lower
windows. The composition is one of the most charming in
Germany. Notwithstanding the thoroughly Italian character of
the pilasters and frieze, the effect is Germanic, particularly in
the statues of the Lord and Lady of the Manor, the Knights
holding the coat of arms (who remind one of the bronze statues
in the church at Innsbruck), and the two lines of busts with their
inscriptions. The use of the framing orders as we see it in this
portal, while it is found in a few other early works, as in the castle
of Dippoldiswalde (1535), is not generally to be found in the broader

façade expanses of German buildings, which preferred the freer surfaces of the Middle Ages, varied occasionally (as in the Topler house
at Nuremberg) by corner pilasters or shafts. The castle of Hartenfels, built by Konrad Krebs in 1533–35, illustrates the passage from
Gothic.

Quite a different, in fact a unique, position among the few real
Renaissance castles, is held by the Fürstenhof castle at Wismar
(1553–54), in the
North, which is built
of sandstone with terra cotta ornamentation
by a famous specialist,
Statius von Duren, who
appears to have had
a workshop for artistic
terra cotta work at
Lübeck. In general it
is true that the use of
terra cotta in architecture died out in North
Germany before the
Renaissance, after
reaching such popularity in the Gothic age.
This workshop of Statius seems almost a
solitary exception, and
its models are North
Italian rather than
Flemish.
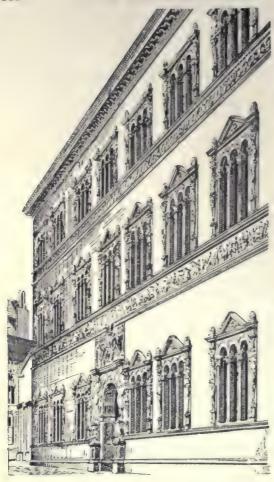
One of the façades
of the Wismar castle

789—Schloss at Brieg: Portal. (From photo.)

is given in Fig. 790. The façade on the court is without the
window gables and has pilasters bisecting the friezes and supporting the cornice. The charm of the terra cottas of its various portals and windows is illustrated by the small doorway
of the chapel in Fig. 791. There is in the north a group of
castles that illustrate the influence of the Netherlands, and so have
less of the direct influence of Italy; especially none of the rich

790—Fürstenhof Palace, Wismar.   (From Ortwein.)

sculptured decoration. Such castles are Schloss Brake near Lemgo and Schloss Schwobber (1574–1602) near Hameln. At the castle of Leitzkau near Magdeburg (1566–95) there is a side façade with a deep four-storied arcaded and architraved portico that shows more Italian influence and beauty of design.

Aside from the carved paneling of private houses and palaces there is little to note in the way of interior design.   There is a scarcity of monumental halls of true Renaissance style.   Two such halls must be mentioned, as altogether the most

beautiful in Germany: those at the castle of Heiligenberg (1584) and at Schloss Ambras near Innsbruck in the Tyrol (1570-71). This so-called "Spanish Saloon" at Ambras may be due to the Augsburg school of art. Its great dimensions, 140 x 32 x 18 ft., may help to appreciate its design in Fig. 792. The carved ceiling is a pure German adaptation of the Italian scheme.   The wall decoration is a series of panels with portraits of the Hapsburg family surrounded by stucco orna-ment based on Italian models.

791 —Doorway of the Fürstenhof, Wismar.   (From Bezold.)

There are also a number of town halls and other civic buildings that illustrate the pre-Barocco style or the classicism contemporary

792—Schloss Ambras, Grand Saloon.

with it.   The most important is that of Rothenburg, in the South, built after 1572 by a Nuremberg architect, Wolf.   The portico of nine arcades separated by Tuscan shafts is Italian (Fig. 793), but the arrangement of two-, three- and four-light windows under a single plain hood, its corner four-storied bay, and its central staircase are as clearly German, but of the purest and simplest manner.   Compare with it the other town halls of the

793—Town Hall, Rothenburg.   (From Bezold.)

same period at Schweinfurt (1570) and Altenburg, and its greater monumental value becomes evident. Equally monumental in the extreme North is the Rathaus at Emden, built in 1574-76 by Arens of Delft (Fig. 794). It is especially remarkable in this region of brickwork for its use of stone. It has great unity of design and simplicity, with closely spaced, thinly mullioned windows, and is another instance of the artistic domination of the Netherlands in the Baltic and neighboring provinces, which is mentioned elsewhere. The same influence appears in the important Rathaus at Münster.

I will close the pre-Barocco series with a wonderful though small civic structure—the Gewandhaus at Braunschweig (Fig. 795). This Braunschweig (1590) building, by the architects Klinge and Kircher, is a composition of unusual symmetry and unites purity of line with the extreme of richness in surface treatment.

794—Town Hall, Emden.   (From Bezold.)

Yet it is thoroughly Germanic and original. There is an interesting combination in the upper part of the traditional Germanic stepped gable with the Italian scroll-façade and semi-circular crown; the hood-mouldings are especially felicitous. The proportions are absolutely un-Italian.

This brings us to the time when Germany becomes quite generally converted to a rather riotous form of Germanized Barocco; and its beginnings can be studied in the Schloss at Heidelberg. The most famous work of German Renaissance is the ruined castle at Heidelberg. It is by no means of one period. Some parts, built under Ludwig V, are Gothic, and there is a section on the north side of the court, half hidden by the later wings, that was built in a simple local Renaissance

in about 1550. Soon after, 1556–1563, the east façade was built, called after the reigning ruler, the Otto-Heinrichsbau. This is, pictorially speaking, a distinctly original work, a work of significance in the history of North-
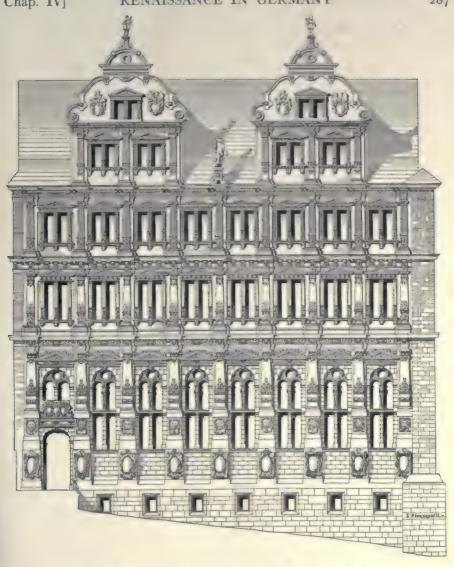
795—Cloth Hall, Braunschweig. (From Bezold.)

ern Renaissance. No model for it has been found. There is no absolute certainty as to the architect, but the probabilities are in favor of Anthony, from the Netherlands. The view in Fig. 796 must be supplemented by the two crowning gables of which the ruined bases can still be seen, and by the basement and double staircase which are largely hidden by the trees. These gables probably detracted from the effect, which without them is more harmonious. The central portal is riotously Barocco in its sculptures, but the rest is a dignified, rich, rational and symmetrical composition. The use of caryatids against the mullions in all three stories, of banded pilasters in the lower story, of statues in niches in the centre of each of the five vertical sections, and the fantastic character of the window gables of the two under stories are not so obtrusive as to interfere with rhythm. This is partly owing to the splendid articulation and rich decoration of the three friezes. All the details are executed with masterly technique. The effect of this work must have been considerable. Even a century later the castle at Mainz, while not imitating it, is planned with a similar spirit: in three stories with a framework of pilasters and shafts, with rich

706—Façade of the Heidelberg Schloss, called the Otto-Heinrich-bau. (From photo.)

797—The Friedrichsbau of the castle, Heidelberg. (From Bezold.)

friezes and gabled windows—but the gables are broken in true
Barocco style.

The north wing of the Heidelberg Castle was added some thirty
years later, and was called the Friedrichsbau from Frederic IV. The
arrangement in three stories, with lower double-storied windows, is
similar, but there is a great change in the treatment. Its scheme is
more rigid, more scientific; the framework is more dominant, the
detail less important. It is colder and yet more Barocco. There are

no caryatids, and the gables are unbroken; the pilasters are heavier, but grow lighter in the upper stories.   We can judge by its two crowning gables what would have been the effect of the destroyed gables of the Heinrichsbau.   A variation is introduced by the use of arches and oculi in the first story windows (Fig. 797).   The architect of this part of the castle was Johannes Schoch of Strassburg.

The Heidelberg Schloss may be taken as a typical example of the appropriation of Italian proportions as well as motifs, and of their use in producing a work of independent value with Germanic æsthetic norms: that is to say, it illustrates the second of the categories into

798—Bremen: E. front of Rathaus.   (From photo.)

which we classify German works of the Renaissance and Barocco styles.   From the numerous public buildings that illustrate the progress of Barocco during the half-century succeeding the construction of Heidelberg, two are selected for detailed study: the Rathaus at Bremen and the Schloss at Aschaffenburg.   They stand at the head of their respective types—the decorative and the simple—and belong to the first decade of the seventeenth century.

The Town Hall at Bremen is a remodelled building, but the main façade in Fig. 798 shows almost nothing of the fifteenth century work.

799—Bremen: Detail of main façade of Rathaus.
(From photo.)

It was entirely made over by the architect Lüder von Bentheim in 1609. As in other German buildings, there is a portico of a design quite unrelated to the façade but very cleverly connected with it by the central projection. There is a rich decoration on a large scale in the portico, with eleven arcades along its east front; spandrels, frieze and parapet are entirely covered with a design the scheme of which is only a slight modification of Italian models (Fig. 799). The general view in Fig. 798 gives quite a different impression. The great mass of sculptured design is by no means in such good taste. There is a tendency to exaggeration, to heaviness and to bizarre forms. The statues under canopies, the great expanse of glassed area, the form of the surbased round arches are all inheritances from the Gothic; so, of course, are the three stepped gables. Notwithstanding the character of its decorative detail, this work must therefore be reckoned in the third class—that of dominantly Germanic buildings.

The Schloss of Aschaffenburg is the work of Georg Riedinger of Strassburg (1605–14). It is based on the old feudal scheme of a large quadrangular court enclosed by four equal wings with large projecting corner towers—the scheme so frequently also preserved, as we have seen, in French chateaux. Seen from a distance the mass is imposing, but a close view (Fig. 800) makes the towers appear clumsy,

800—Aschaffenburg Castle. (From photo.)
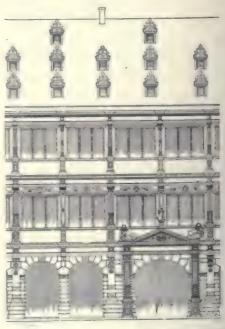
801—Centre of façade of castle, Aschaffenburg. (From photo.)

owing to the lack of a vertical framework and to the heavy proportions of the crowning of the towers. The extreme simplicity of the design makes it unnecessary to criticize any detail except the central section of each wing with its portal and gable, which has excellent features (Fig. 801). In itself the gable is an unusually good example of this national feature, but it seems almost excrescential because it has no structural connection with the main building, such as was given to the corresponding gable of the Bremen Rathaus. The portal and windows are unusually close to Italian models.

To another Strassburg architect is due the design of the old Rathaus of Strassburg (c. 1585), which is a work at the opposite pole from Aschaffenburg. In the first place, it uses a framework of the orders, and then it is treated with extreme delicacy in detail and with a superabundance of glazed space (Fig. 802).

In the South, at Munich, there prevailed at this time a Barocco school led by Flemings who had studied in Italy. Their work can be studied in the halls of the Imperial "Residenz" built or decorated for Maximilian I.

802—Old Town Hall, Strassburg. (From Bezold.)

Nothing has thus far been said of religious architecture. Very little need, really, be said, for two reasons. In the first place nothing in the Italian style was built until the seventeenth century; and when Barocco was then introduced it was so little modified as to give but little scope for national traits, so that it is of little historic value. The most prominent early work—for instance, the Cathedral of Salzburg—was built in 1614–34, by a pupil of Scamozzi, Santino Solari, and is pure Italian Barocco. Other buildings in Salzburg and Prague show the same servile imitation. It was almost the same in Munich, where the church of the Jesuits illustrates how that order, in Germany as in the Netherlands and France, helped to spread Italian Barocco. In Fig. 803 the interior of the church of Strahov monastery illustrates the school of Prague. In Fig. 804 is the church of St. Matthew at Breslau. They show the use of both tunnel

803—Interior of church of Strahov Monastery at Prague. (From Leger.)

804—Breslau: Matthias Kirche. (From Gurlett.)

805—Church of St. Michael, Munich.   (From Bezold.)

vault and dome. There is a very impressive use of the main tunnel vault in St. Michael's at Munich (Fig. 805), which started the series of single-aisled churches in Germany. It is an interesting fact that as late as 1608 a Barocco form of Gothic interior was begun in the Marien Kirche at Wolfenbüttel, with broad ribbed vaulting. The church at Bückeburg, whose charming façade is given in Fig. 806, where the windows are late Gothic, also has a ribbed-vaulted interior with composite columns and Barocco details.

The Hohe Thor at Danzig (1588), in Fig. 807, is most suggestive in several ways. It is an imposing and finely articulated structure, but its chief claim is its extraordinary resemblance to the Porta Stuppa at Verona by Sammicheli. It has been suggested that it was not a direct importation but that it came by way of the Netherlands, where the Georgsthor at Antwerp shows similarities. This

806—Church at Bückeburg.   (From Fritsch.)

makes it the more interesting to note that the two most prominent
architects in Danzig at this time were not Germans but Netherlanders,
such as Vredemann de Vries, whose works in his own country are
famous, and Anthonis von Obbergen of Mechlin, who was the city
architect of Danzig for nearly twenty years (1594–1612). He was
already at work on the City Hall in 1587; he built the Hohe Thor in
1588 and the Cloth Hall in 1605, in thoroughly Belgian style, of brick-
work with stone trim. Another foreign architect was from the Dutch
part of the Netherlands, Abraham van den Block, who built the

807—Danzig: Hohe Thor.   (From photo.)

Langgasse Thor. But there is little trace of anything but German
traits in the Rathaus at Danzig.

The decisive influence of the Netherlands in the Baltic section
of north Germany, which we have seen illustrated at Danzig and
Emden, is even more evident in Denmark. The Renaissance was, con-
sequently, very late in its appearance, and there is nothing that can
be assigned to the sixteenth century except the castle of Kronborg
near Helsingör (c. 1580), which is a mixture of German and Flemish
elements. The principal monument was the castle of Frederiksborg
(1602–25); soon after these two comes the castle of Rosenborg near
Copenhagen (1610–25). There is nothing else of interest except the
Church of the Trinity and the Exchange at Copenhagen. Among

the Dutch architects who worked at Frederiksborg and Copenhagen
were Hans von Steenwinkel, father and son, Lorenz Sweis and An-
thonis von Obbergen.   The castle of Frederiksborg is picturesquely
set upon three small adjoining islands.   The main building rises about
three sides of a wide court, with a low one-storied gallery along the
fourth side with entrance opposite the drawbridge.   The style is mas-
sive and simple (Fig. 808).   Like the rest of these Danish buildings, it
is a brick construction with stone trim, with thinly mullioned windows.

808—Chapel of the Schloss, Frederiksborg.   (From
Bezold.)

There is in Germany a
wealth of private houses of
moderate size of this period
that far surpasses that of any
country excepting, perhaps, the
Netherlands.   There is also far
greater variety than in the
Netherlands.   We find, for ex-
ample, the Italian scheme for
polychromatic and *sgraffito*
façades reproduced in the
famous Fugger house at Augs-
burg (1515) and in numerous
later houses at Munich, which
illustrates how much closer to
Italy decorative work was in
the Southern than in the
Northern provinces; though
another centre of polychromat-
ic treatment was the Rhine-
land, where several examples
can still be studied at Stein.
The usual treatment of half-
timbered and panelled wood façades need not be noticed here.   Two ex-
amples, however, are selected as illustrating types of extreme richness
and beauty.   One is the Syndikenhaus at Hildesheim in Fig. 809,
where a consistent attempt is made to recast the medieval house design
in the mould of Renaissance framework and decoration.   The unusual
size of some of these Hildesheim façades has led to the interesting design
of two projecting wings.   This composition is shown even more felic-
itously as to general design and proportions in Fig. 810, where the

809—Syndikenhaus at Hildesheim. (From photo.)

810—Houses at Hildesheim. (From photo.)

gables crowning this house on the Hildesheim square are well outlined. Next to it is an interesting stone Gothic house. The second type, as illustrated in the wonderful Salzhaus at Frankfort (Fig. 811), does not depend in the least on overhanging stories, and on projecting frame-work, to increase the effectiveness of the decoration, as is the case at Hildesheim. Everything is in low relief, of tap-estry-like effect and of the greatest minuteness and an almost bewildering richness. A similar effect, but with straight instead of curvilinear gable, is given in the Kromschröder house at Osnabrück. The house Zum Ritter in Heidelberg, built in 1592, shows a type more strongly marked by Italian traits in the use of the orders, in the gables and architraves at the windows and classic cornices, and in the caryatid statues. The decorative work also is more akin to Lombard work. There is nothing more Italian in this region. On the other hand there is a doorway from Landshut now in the Munich museum where the rich tapestry-like pattern is kept within a design of such unusual symmetry as to be almost classic, not-withstanding the purely Germanic char-acter of its crowning motif (Fig. 812).

811—Salzhaus at Frankfort-on-Main.
(From Bezold.)

In this connection it will be well to dwell upon the most characteristic units of constructive decoration: portals, bay windows, gables. A very common form of portal is the broad, low and often surbased arch. In the portal at Brieg in Fig. 789 we see a very unusual case of adaptation of a middle Renaissance type of Lombard origin. Equally ornate in a different way, and quite reminiscent of a Roman triumphal arch, is the gateway of the chapel of the castle at Dresden (Fig. 813) with statues in niches between engaged shafts. On a smaller scale there is nothing more exquisite than the portal of the Fürstenhof

palace at Wismar, which is
described on p. 281. All
these works were produced
in the two decades between
1550 and 1570, which were
the most notable in the
early Golden Age of Ger-
man Renaissance. Yet even
at this early stage in the
national assimilation of the
new forms, the extremest
license of Barocco was in-
dulged in.   The most strik-
ing instance is the central
portal of the Otto-Hein-
richsbau of the Heidelberg
Castle.   Its rôle in the
façade can be seen in Fig.
796, but it is so notable a
work that it is given in more

812—Doorway from Landshut in Bavarian
Museum, Munich.   (From Bezold.)

813—Portal of the chapel of the Royal
Castle, Dresden.   (From Bezold.)

detail in Fig. 814.   The best that
can be said of it is that it is pow-
erful and picturesque.

Midway in point of style be-
tween the Brieg and Heidelberg
portals is that of the castle of Mer-
seburg, with a pair of free-stand-
ing columns instead of the earlier
pilasters or the later caryatids.
But there is always the same
superabundance of decoration.   In
the bay windows Germany had,
during the Gothic period, distin-
guished herself by inventing types
peculiarly her own.   She con-
tinued to do so after adopting
Renaissance forms, though the
opportunities for these picturesque

814—Portal of the Otto-Heinrichsbau, Heidelberg Castle. (From Bezold.)

excrescences were much diminished and were far from harmonizing with real Renaissance design. A window in the Schloss of Hartenfels is a symmetrical design based on Lombard detail but quite original in its scheme and retaining a late Gothic outline for its windows (Fig. 815).

In the treatment of gables the old Gothic scheme was modified under the direction of two motifs: the volute of the Italian façade, and the use of the order, with architrave and cornice supported by pilasters or caryatids. The illustrations already given will be sufficient to give a general idea of the scheme, especially those of Aschaffenburg, Heidelberg, Bremen and Frankfort; the façade of Bückeburg shows clearly the small pyramids that were introduced to mark off the stories.
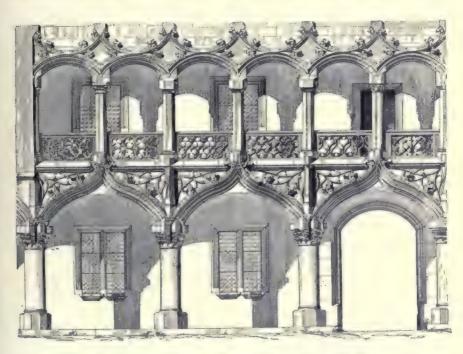
There is a great wealth of interior decorative work that is usually more closely akin to the Italian and classical spirit than the details of constructive decoration. This is perhaps to be explained by the fact that the *Kleinkünstler* of Germany, the industrial artists, had been, from the beginning of the sixteenth century, more strongly influenced than the builders and monumental sculptors by the new art. There are superb carved, painted and stuccoed ceilings, such as those of the Golden Hall of the Town Hall at Augsburg, of the Fürsteneck Hall at Frankfort and the castle of Ortenburg; wall decorations such as that of the Fredenhagen Hall at Lübeck, that of the chapter-house at Münster, that in the Peller house at Nuremberg; the same designs can be studied in a great mass of church
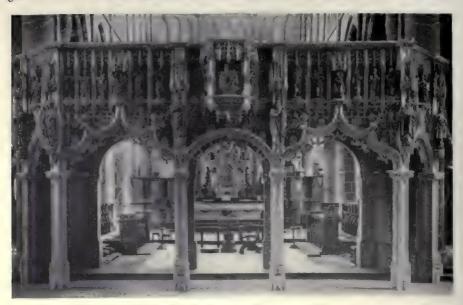
815—Hartenfels: Window of the Schloss. (From Bezold.)

furniture and accessories not strictly architectural. It is interesting to note that the earliest centre for decorative design of this sort was Augsburg, which, on the other hand, was not much of an architectural centre. At times, as in the Peller house, the riotous character of the design far out-Barocco anything perpetrated in Italy. Midway between this late unrestrained development and the earlier classic Augsburg manner is such work as the wonderful doorway of the Rathstube at Lüneburg, designed by Albert von Soest, where the details of the carving have the delicacy of niello or goldsmith work, with that lack of a sense of composition which is so commonly the base of German art.

In certain decorative features of works of the sixteenth century it is curious to study the approaches to Renaissance, showing either in the corruption of old Gothic standards or in the mingling of realistic figures with Gothic ornamentation. A couple of instances, taken at random, will illustrate this in a different way from the more familiar works. In Fig. 816 the open portico and gallery of a house at Bruck is paralleled in some Spanish works, and there is hardly a sign of the impending change. The same is true of the superb stone jube in

816—Bruck: Gallery of façade of house. (From *Handbuch*.)

817—Stone jube or choir screen of church of N. Dame at Walcourt.
(From Ysendyck.)

Fig. 817, which is given here particularly because it stands for a class
of most important works which were in general use throughout Europe
and have survived mainly in Spain and the Netherlands.   The Revolu-
tion wiped them out in France and the Reformation in Germany, so
this Belgian example can be used only as typical in the broadest sense.

CHAPTER V
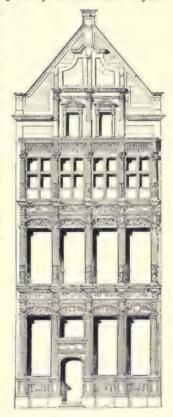
Belgium was much slower than France in adopting Renaissance forms; was in fact even more inhospitable to them than Germany. Aside from tentative efforts and the insertion of decorative details, it was not until after 1550 that buildings were put up in the new style. French influence was insignificant, and as the native architects followed, when they adopted Renaissance forms, the ideas then current in Italy, which were those of the scholastic classicists, there is nothing in Belgium in the manner either of the early or the middle Italian Renaissance; none of the exquisite decorative work corresponding to the Lombard and Tuscan sculpturesque ideals that inspired so many French and South German artists. Only in a few exceptional early cases, such as the *Haus zum grossen Salm* in Mechlin (1519), is there a wealth of delicate decoration (Fig. 818).

A rather charming instance of transitional work is the old Greffe at Bruges, built in 1535 by Sixdeniers, next to the Town Hall (Fig. 819). In its three gables the two styles are combined: the two stories of columns and the decorated frieze are classic, while doorways and windows remain a modified Gothic. The architect Vredemann de Vries built in this hybrid style before adopting purer forms.

818—House "Zum grossen Salm," Mechlin. (From Bezold.)
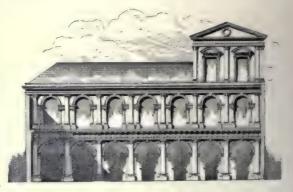
819—The Greffe or Law Court at Bruges. (From Ysendyck.)

The palace of Margaret of Austria at Mechlin can hardly be called Belgian. This would be historically important because it was begun in 1517, but it was designed by a French architect, though he doubtless cannot be held responsible for the gables that crowned it later. Perhaps the earliest work of some extent in pure style is the Granvella palace in Brussels, now the University. It is exceedingly simple, with some resemblance, on a small scale, to the Palazzo Farnese. It was designed by the Van Noyens, in 1559, and restored in 1771 (Fig. 820).

Shortly after, the Town Hall of Antwerp was built by Cornelius de Vriendt and Paul Snydenez (1561), though sometimes attributed to Cornelius Floris. The view of the central section in Fig. 821 shows that to a limited extent the architects were influenced by the traditional gabled design; but except for this and for the gallery under the roof they followed with success Italian models of the middle period in the scheme of two pilaster-framed stories above a rusticated basement with arched openings. The main difference lies in the greater proportion of glazed sur-

820—Granvella Palace, Brussels. (From Gurlitt.)

face, a change that was natural and common in the northern climates and need not be ascribed to Gothic reminiscences.

For smaller works of civil architecture nothing is more illustrative of its varied aspects and its richness at the very close of the Renaissance than the group of three guild houses in the uniquely monumental main square of Brussels, built in 1697–8. The effect is pictorial; the sculpture takes the form both of statuary

821—Hotel de Ville at Antwerp.   (From Ysendyck.)

and caryatid figures. The framework is strongly marked and, in the main, simple. The glazing fills it completely. The mixture of classic and Barocco elements is interesting (Fig. 822). Earlier works of this class are the Drapers' and Tanners' Halls in the main square of Antwerp (1541–1644).

In the field of religious architecture, the first personality of any interest was the architect Francquart. Since the destruction of his earlier work—the church of the Jesuits at Brussels (1606–16)—we must turn to the church he built for the Augustinian Monks in 1620, also in Brussels. Its façade is in the simpler Barocco of the type of the Gesù in Rome. A more spectacular example of the same

822—Guild houses, Brussels.   (From Gurlitt.)

style is the church of the Jesuits at Antwerp: a Roman basilica with broad façade of three stories and domical flanking towers. One of these towers, built soon after 1614, is given in Fig. 823. It is slightly polychromatic, combining bluish and light stone. Its architect was Father Peter Huyssens, who was a member of the Jesuit order—an unusual and interesting circumstance. In fact the Jesuit churches at Bruges (also by Huyssens), Ypres, Luttich, Louvain, Mechlin and elsewhere helped to spread

823—Tower of St. Charles Borromeo, Antwerp. (From Ysendyck.)

824—Louvain: Church of the Jesuits (St. Michael) attributed to Faidherbe and Hessius, 1650-66.

through the land the Barocco forms of the Renaissance.   In this it is important to note that the Jesuits had the greatest assistance from Rubens, whose exuberant nature favored such spectacular forms and large details, as we can see in the gate to his garden at Antwerp.   The view of the church at Louvain shows not the two superimposed stories of the Antwerp type but a more picturesque and grandiose single story with central second story and gable (Fig. 824.)

HOLLAND.—In the Dutch part of the Netherlands a considerable difference was made in art by the conversion of the people to Protestantism and by the ensuing wars of religion.   For one thing the predominance of civil architecture was even more emphatic than in the sections that remained Catholic.   In Utrecht, Dordrecht, Delft and Nymwegen there are some charming houses of the sixteenth and seventeenth centuries, mostly in a combination of brick and stone or wood and stone, on a small scale, and keeping the old familiar scheme of the stepped

825—Hotel de Ville at Bolswaert.   (From Ysendyck.)

façade.   Only seldom, as in a charming example at Utrecht, is a framework of classic character and an order with pilasters or engaged shafts and frieze of distinctly antique design employed. Nothing that remains is of as early a date as the destroyed Town Hall of Utrecht, which was built in imitation of early Renaissance work in 1545.   Some twenty years later was built the Town Hall of The Hague (1564–75), where the architect has tried to diminish the contrast between the high ground story and the narrow second floor by emphasizing the details in the upper part to the detriment of unity of design and material.   The same contrast

of materials (stone and brick) and a use of patterns appear in the
hospital at Hoorn.

The Town Hall at Leyden (1597) by Lieven de Key, though badly
altered, is exceedingly picturesque, with a combination of Rococo and
classicism.   Its architect here used stone, but in the Schlachthaus at
Haarlem he showed quite a dramatic combination of brick with stone
trimmings in the familiar traditional stepped gable design.   A later
work (1614), the Town Hall at Bolswaert (Fig. 825), has similar poly-
chromatic effects and is more influenced by Italian Barocco.   The detail
here reproduced shows its picturesque qualities, but hardly does justice
to its symmetry of design.   In general, however, Holland's tendency
was toward the simpler Palladian forms.   For one thing, it did not feel
the Jesuit influence which was usually in favor of flamboyant effects.
The Town Hall at Amsterdam (Fig. 826) is considered the most
important work of its class in Holland.   Its architect was Jacob
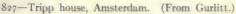
826—Town Hall, Amsterdam.   (From Bezold.)

van Campen (1657).   Though its proportions are quite colossal
(80 x 63 met.), its puritanical simplicity and the flatness of its scanty
architectural memberment make it monotonous and ineffective.   Its low
basement is surmounted by two double stories—a full story and a
mezzanine—each of them framed by a separate row of Corinthian
pilasters.   There is more value in the main hall (34 x 16 met.), covered
by a tunnel vault over two stories of windows.   Both more effective
and decorative is a specimen of private architecture in Amsterdam, the
Tripp mansion, which has some of the warmth of French design, even

though it also is of Palladian origin (Fig. 827).   A small guildhouse at
Hoorn (Fig. 828) is a good instance of the way in which the coarser
and heavier Barocco design was adapted to the type of the stepped

827—Tripp house, Amsterdam.   (From Gurlitt.)

828—Kollegienhaus at Hoorn.
(From Bezold.)

house and of the fact that this later work was in no way evolved out of
previous Netherlandish work, but was the result of a fresh invasion of
Italian forms.   The two architects of some prominence in Holland
during the Barocco period of the seventeenth century were Jacob van
Campen, a pupil of Rubens, who so dominated this age, and Pieter
Post, both of Haarlem.   The former can be judged by the Amsterdam
Town Hall; the latter by that of Maestrich, begun in 1652.

If the Netherlands had evolved more organic and continuous
Renaissance forms during the sixteenth century it is probable that
her influence on England, with which her relations were then so close,
would have led to an earlier adoption of the new style by the English.
As the case stands it is easy to see why this influence was sporadic.

CHAPTER VI

RENAISSANCE IN ENGLAND

SEVERAL Italians of the early Renaissance, even noted artists such as Torregiano, Benedetto da Rovezzano and Giovanni da Majano, came to England under Henry VII and Henry VIII. Later, in the sixteenth century, a number of Flemish, Dutch and German artists emigrated or sent works to England. Unless the peculiar interrelation of the arts in England at that time is clearly visualized it is difficult to understand how it was that no broad new impulse, no master idea of Renaissance origin really entered into the fibre of English art until the time of Inigo Jones, early in the seventeenth century, so that England was the most belated adherent of the new style. The keynote cause was the decay of the central authority of the architect and the independence of each trade and art guild. This movement toward independence had commenced in the fourteenth century, as has already been noticed in the case of French Gothic, and it not only killed the authority of the architect by allowing each guild to contract for its own share in the construction and decoration of a building, but it finally eliminated the architect himself almost entirely, leaving at times the planning of a large manor, for instance, to its dilettante owner, or to a "surveyor," who did not even draw elevations, much less prepare "patterns" for details and construction.
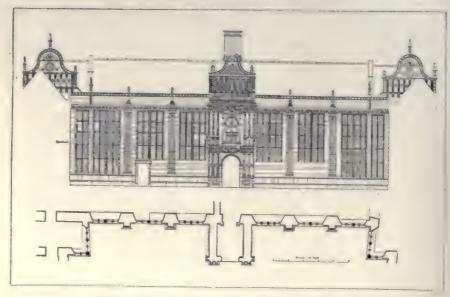
Now, no radical changes can be brought about except through the agency of certain strong, leading personalities. England, where the fractioning of artistic and building work was pushed to an extreme, possessed no such personalities during the sixteenth century. We find here and there the works of decorators of moderate excellence in the Renaissance manner, but they were sporadic and not part of a national movement. The last great architects of England had created the Perpendicular Style, at Gloucester and elsewhere, and

the able decorators who followed in their wake, worked out the
scheme so splendidly down to the age of Henry VIII that there was
no obvious reason for a change and no genius to plan such a change.

At the same time, on the ground that each country must be
allowed freedom in expressing the artistic tendencies of the age,
there is considerable truth in the contention of English critics that
the notable development of civil architecture under the impulse of
Elizabethan culture, accompanied as it was by the adoption of
Renaissance features, ought o be considered rather under Renais-
sance than Gothic. It is important to remember that religious
architecture was then a negligible quantity. From the time of the
suppression of the monasteries and the ruin of so many churches
under Henry VIII, not a single church of importance was built in
England until after the London fire of 1666. The transition from
Gothic to Renaissance, if we may venture somewhat improperly to
call it so, must be studied entirely in the mansions of the English
nobility, which in extent and magnificence rivalled the royal cha-
teaux of France and excelled the palaces and villas of Italy.
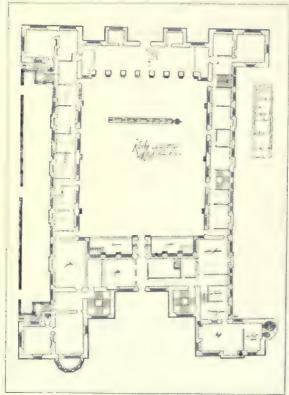
In any house scheme the openings do even more than the plan
in determining stylistic effect. In England the climate required a
far greater glass area than in Italy and a somewhat greater area
than in France and Germany. It was therefore perfectly natural
that English builders should have been loth to adopt the small single
or two-light window of the classic Renaissance. Consequently, as
designers held, throughout the sixteenth century, to the Gothic
mullioned window, it was in the decorative framework that the
Renaissance made its earliest important inroads, aside from such
features as portals or interior details.

In the development of the manor plan the English showed fer-
tile invention and plasticity. In pre-Elizabethan times a delightful
picturesqueness had been combined with a tendency to place in the
centre of the main building a large hall, with a parlor opening out
of it at one end and a pantry and kitchen with annexes at the other
or lower end. Three wings extended from this main section and
enclosed a court with a gateway opposite the hall. This general
form and the surrounding moat was a survival of feudalism.

Under Elizabeth the trend was toward a progressive reduction
of the central hall of the old castle, which ended by becoming a mere
passageway. Feudal democracy, with the retainers and promiscuous

829—Kirby Hall, Northants.   Court, south side.   (From Gotch.)
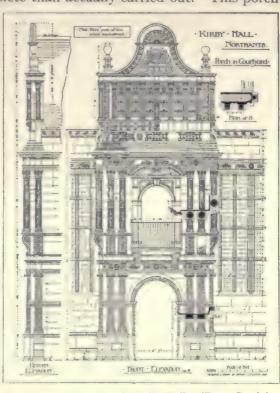
830—Thorpe's plan for Kirby Hall.   (From Gotch.)

guests dining together in an immense general room, was replaced by an aristocratic seclusion which required a private family dining-hall, a long gallery for family portraits and entertainments, etc. The consequence was not only a rearranged central court type, but a multitude of variations that cluster about two other main plans: the **H** type and the **m** type. In evolving these changes there is a strong tendency to a symmetry that quite does away with the old picturesqueness.

Kirby Hall (1570–75), while characteristically

Elizabethan, is the first example on a large scale of a strong classic
infusion of this sort, both in its general framework of colossal pilas-
ters and entablature and in its porch, completed in 1572 (Fig. 829).
It belongs to the central court type, enclosed on all four sides, and
the porch stands facing the court on the south side. The plan (Fig.
830) by John Thorpe gives the hall as it was originally intended,
far more regular and complete than actually carried out. This porch
is distinctly national in
its arrangement, though
its details are so strongly
marked by late Italian
influence (Fig. 831). The
Barocco features of the
round-headed and broken
gables and of the broken
entablatures, the high
basement and the scrolls,
do not bear the mark of
German or Dutch, but
rather of French design-
ers. It does not retain
a trace of Gothic motifs.
At the same time the
entire exterior circuit of
the hall is crowned by
Germanic gables, a fea-
ture which Mr. Gotch
has suggested may be
an addition to the origi-

831—Porch in courtyard, Kirby Hall. (From Gotch.)

nal scheme. The great windows on either side of the porch in Fig.
829 are a characteristic of the age in its extremest form.

At about the same time (1567–79) Longleat Hall was being built.
It is attributed by some to an Italian, Giovanni of Padua, but this
seems hardly possible, for it is essentially British, and among the
most colossal and characteristic Elizabethan mansions unusual for
the complete absence of crowning gables. Its three stories are sep-
arated by entablatures resting on pilasters of the three orders, the
space between which is more completely filled by the mullioned
windows than was even the case at Kirby. Further progress is made

toward absolute symmetry of plan and elevation. In this connection Wollaton Hall (Fig. 832) is to be studied, because it is the finest instance at this time of the combination of enormous mullioned windows in a Renaissance framework: the reason for its supreme excellence is partly the exquisite upper story of round-headed two-light windows in the central structure. The square pavillions at each corner, almost separated from the main structure and reminiscent of feudalism (Fig. 833), are given picturesqueness both by the lowness of the wings that connect them with the central structure

832—Wollaton Hall, Nottinghamshire.   (From Gotch.)

and by the recessing of the two main fronts with their terraces. The round-headed windows just referred to in the centre are distinctly Italian, not to say Venetian, while Dutch influence appears quite obnoxiously in the over-rich ornamentation, especially in the gables of the pavillions. The classic framework of the various sections is formed by columns grouped two by two with niches between them instead of by single columns or pilasters, as at Longleat and Kirby, where the proportions were more colossal. On the whole, foreign influence dominates more completely at Wollaton than in any other large palatial residence anterior to the time of Inigo Jones, and it is distinctly superior in artistic qualities to its German and Dutch contemporaries.

For a more spectacular composition than Wollaton, nothing is finer than Burghley House, shown in Fig. 834, in which effective use is made of the chimneys on the sky-line and of projecting towers in plan. The long gallery of Haddon Hall, given in Fig. 835, is a good example of a national element of private architectural planning, which was of extraordinary value and may have exercised an influence even as far as Roman palaces in the seventeenth century.

Only in one or two works of minor extent are classic norms at this time more consistently carried out. The most noted is the monumental gateway of Caius College, Cambridge (1567–1574), sometimes attributed to the Fleming Theodore Have of Cleves. It is one of three gateways in this style, and is the best preserved. Except for the central archway it has, roughly speaking, the effect of a temple façade, with four columns resting on a triumphal arch and surmounted by a high dome. In another country it would attract but little attention, but in England it is an interesting chronological landmark as the purest piece of classic work before Inigo Jones.

833—Corner tower, Wollaton Hall. (From Gotch.)

This is the way matters stood in England before 1619, when Inigo Jones made his plans and drawings for the new Whitehall palace. In

834—Burghley House, Northamptonshire. (From Gotch.)

1619 the creative age of the Renaissance—early, middle, and late—had quite passed away and even Barocco architecture had come and gone. And in all this England had taken but slight interest, only the surface of her national art-currents being affected. But now came at the thirteenth hour a radical change; and for the first time in several centuries there entered the dominant personality of an architect.

Inigo Jones had been gaining reputation, after 1604, as traveler, man of taste, and designer of stage scenery and lighting, in which he introduced improved Italian methods. After journeys to Italy in 1613 and 1614, during which he studied both ancient ruins and the

835—The long gallery, Haddon Hall. (From Gotch.)

writings of the scientific school of later Renaissance architects, Jones settled into his stride as a professional architect. He broke away absolutely from any connection with Elizabethan art. He is popularly considered to have adopted as his norm the Palladian standards. Undoubtedly Palladio was his chief source, but he also studied not only other Italian theorists such as Serlio and Vignola, but Frenchmen like Philibert de l'Orme, whose influence appears at once in his Whitehall scheme. He built a façade for the cathedral of St. Paul, London, which was destroyed by the fire of 1666. It was, judging from drawings, a clumsy composition, awkwardly proportioned with two flanking towers.

In the chapel of Lincoln's Inn (1621–23) he showed, to be sure,

that he had the genius to harmonize his new work with the Tudor
style. His best conceptions were the country houses which he altered
or built, such as Wilton House (1640), Stoke Park, Chiswick, etc. At
Wilton in particular he displayed his decorative skill in the interior
details, especially in the dining-hall. The scheme for Whitehall was
so grandiose that it was never carried out. Only the banquet hall
shows how closely and with what perfect art he was able at times to
reproduce the Palladian style.

John Webb and William Talman were among the leaders after
Inigo Jones and were the men who most thoroughly felt his influence.
Still the great pile at Chatsworth (1681) by Talman shows something
of the mixture of French and Dutch influences from which Jones had
sought to free England. The two main stories above the basement are
framed in a common scheme of plain Ionic pilasters, with a central gable
to the main façade interrupting the attic which crowns the rest. The
plan is more compact than is usual. (Fig. 836.)

The great fire of 1666 which wiped out so large a part of London
was the occasion that found the man in Christopher Wren (1632–

836—Chatsworth (Derbyshire). (From Gurlitt.)

1723), the second great English architect. Like Jones, he did not
begin as an architect; but unlike him his point of departure was not
decorative work but mathematics, and he first studied architecture
in books. In this he evinced French rather than Italian proclivities,
and while he studied the Italian text books and knew Bernini he was
less attracted to the Barocco, then ruling Italian art, than he was to
the more constructive classicism that was then pervading French

work after 1650. Among the Italians it was, consequently, to Palladio that he was attracted, as had been the case with Jones. Yet he allowed himself a certain freedom of proportions and details that smacks of the Barocco, while his mathematical studies gave him a sense of scale and of the relation of details to general design which is absent in most Barocco work.

It is this individualism of Wren, this plasticity of his genius, that made him the man of the hour in the reconstruction of London after the fire. He drew up a comprehensive scheme for the new streets and squares which would have given a City Beautiful, but it was not carried out. He had, however, the consolation of putting up the main building of his scheme, St. Paul's Cathedral.

Wren first planned St. Paul's as a concentric structure, with a central dome on eight piers surrounded by eight smaller domes so equally spaced as to give the appearance of a Greek cross with curvilinear angles, preceded by a domical vestibule and propylæum. It was a harmonious design which would have given a splendid base for his inimitable dome. But ecclesiastical influences intervened: the oblong plan required by the traditions of English liturgy was insisted upon, and it is merely another proof of the plasticity of Wren's genius that, with none of the original features remaining except the dome, he was yet able to create a masterpiece on the old scheme of three aisles, transept and elongated choir (Fig. 837). It has been well said that the beauty of the dome depends mainly on the use of the gallery of free-standing columns in a design based on Bramante's jewel of S. Pietro in Montorio, at Rome (Fig. 665). The scheme of the dome combines characteristics of both Bramante's and Michelangelo's designs for the dome of St. Peter's in Rome. The two flanking towers have been thought to be reminiscent of Inigo Jones' façade of the old St. Paul's, but there is no reason to deny that Wren was influenced by San Gallo's design for the façade of St. Peter's (Fig. 664). The prevalent Italian Barocco façade of a single colossal order was avoided, and the two stories crowned by a plain gable and with friezes, is rather a forerunner of neo-classicism than an adaptation of Italian design.

In the construction of the inner dome, which was entirely independent of the outer shell, Wren showed equal originality. Instead of aping the Italian scheme of coercing materials into an unnatural relationship by means of chains and tie-beams, he adopted the French

scientific method of obeying the laws of statics, thus making prac-
tical application to architecture of his mathematical training.

Wren's love of domical architecture was shown in his designs for
a number of London churches; the most notable is St. Stephen's,
Walbrook, with its dome resting on eight columns. For decorative
features St. Clement Dane's, Strand, is valuable. In these churches
the Palladian influence is more evident than in St. Paul's. Several
of Wren's towers are good, especially St. Bride's, Fleet Street, with
a five-storied spire of open arcades.

One of the great national monuments of this time, now the Hos-
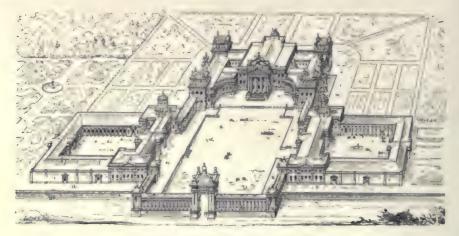
837—St. Paul's, London   (From Gurlitt.)

pital of Greenwich, with its four separate wings and courts, is in a
way an epitome of England's architectural genius, because it was
the combined work of Webb (1667), Wren (1694), Vanbrugh and
Thornhill (1707).

The genius of Vanbrugh (1666-1726) was less universal and plas-
tic than Wren's. We miss the fine workmanship in details that was
characteristic of both Inigo Jones and Wren. On the other hand,

in the designs for the great mansions that were his specialty, he shows remarkable mastery of pictorial effectiveness combined with grandeur. His Netherlandish blood showed itself in his first works, but in 1714 when he began Howard Castle, he had found himself. In the almost simultaneous (1715) scheme for Blenheim Castle (Fig. 838) he used similar motifs in the central court, but the far larger scale enabled him to develop the wings.

838—Blenheim Castle.   (From Gurlitt.)

BOOK XVI.

CHAPTER I

MODERN ARCHITECTURE

SOME critics and historians—notably Choisy—include under modern architecture the works of the seventeenth century, everything, in fact, that follows on pure Renaissance. It is largely a matter of judgment. For example, in the famous gallery of the Louvre (Fig. 839), added by Perrault in 1666–1670, there is a

839—Grand gallery of the Louvre, Paris. (From photo.)

distinct prelude to modern neo-classicism. But it is not a "school" work, but rather the product of an outsider of genius.

During the eighteenth and nineteenth centuries national barriers were again broken down, quite as completely as in the Gothic Age and more so than in the Renaissance. The age was one mainly of antiquarian curiosity and adaptation, not of originality; so that notwithstanding this internationalism there was no unity but rather a

series of successive or contemporary waves and currents. Of the
works built after Barocco had exhausted itself, toward the middle of
the eighteenth century, the greater bulk belong to revivals of historic
styles more or less mechanical and of no independent value. In each
country there have been propagandists of the neo-Gothic, neo-
Romanesque and of what we can only call pseudo-Moorish and
pseudo-Byzantine. They can be disregarded.
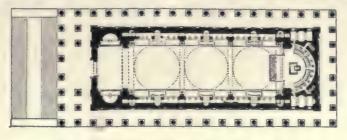
The only movements of real interest are those of the neo-Renais-
sance and the neo-Classic (especially neo-Hellenic) schools: these two
currents often merged, as they naturally would, and were tempered
by modernisms. The Early Renaissance, with its delicacy of pro-
portions and its richness of ornamentation, was but little regarded.
It was the more scientific schools of the sixteenth century, especially
Palladio, Vignola, Sanmicheli and occasionally Sansovino that have
been the real inspirers of the new work.

Neo-Hellenism and neo-Classicism.—The neo-Hellenic school has
added a valuable element which has become incorporated into modern
architectural history, either in its pure form or joined to neo-Palladian
or distinctly modern elements. How and when did it originate?
How were Greek substituted for Roman models as a dominant factor
in neo-classicism?

The many European architects, especially English, who travelled
and drew Greek ruins in Greece, Italy, Syria and Asia Minor during
the eighteenth century, and the work and enthusiasm of the great
archæologist Winckelman, made it possible at the close of the cen-
tury for craftsmen to reproduce the forms of Greek and Greco-Roman
masterpieces for an appreciative public. This was not done quite as
promptly or generally in Italy, where Palladianism was too strong, as
it was in France, Germany and England. For this movement the
publication in 1762 of Stuart and Revett's great work on the archi-
tecture of Athens was epoch-making. Then came the publication of
the temples of Pæstum, of Palmyra, and others in Greece and Asia
Minor.

By the side of the new vista into refinements of proportions, design
and detail which architects thus gained we must set another valu-
able contribution from the Roman field. Through a new study of the
Pantheon and the great halls of the Roman Thermæ architects were
enabled to make a harmonious combination of Hellenic and Roman
design: for it was absolutely necessary under modern conditions to
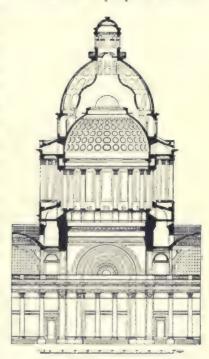
use for certain classes of interiors the Roman domes and vaults. In France the two revolutionary buildings that usher in the neo-classic movement are the Pantheon (1757) by Soufflot and the Madeleine (1764–1806) by several architects, but mainly by Vignon, in both of which the Hellenic and Roman elements are combined, the former dominating in the Madeleine and the latter in the Pantheon. The Madeleine (Fig. 840) is a hexastyle dipteral Corinthian temple which

840—The Madeleine, Paris. (From Joseph.)

remains the most artistic, as it was the earliest of the attempts to reproduce the Greek temple. This exterior does not prepare one for the interior, which instead of the expected flat-ceiled hall consists of a short tunnel-vaulted vestibule, and a long narrow nave of three domes with a semi-circular apse. The low domes with central skylight and pendentives resting on free standing columns are a Roman composition based on the Pantheon, the Basilica of Constantine and the Roman Imperial Thermæ; though the plan might easily have been inspired by such domical French churches of the Romanesque era as the cathedral of Cahors. There is both greater unity and more originality in the Pantheon (Fig. 841). Its plan of a Greek cross may be derived from S. Marco or S. Front, its dome may have its prototype at St. Paul's, its portico may be reproduced from the Roman

841—The Pantheon, Paris: section.
(From Joseph.)

Pantheon; but these elements are fused in a masterly way into
a composition so simple and symmetrical, so thoroughly modern
in its groundwork as to make it a masterpiece.   In the interior the
hollow piers of the Byzantine are replaced by groups of and single
Corinthian columns that leave the church less encumbered.   As a
beautiful interior it is comparable with the English galleries and the
Salle des Fêtes at the Chateau of Compiègne (Fig. 842).

A third type, approaching more closely to pure neo-Hellenism, is

842—Chateau of Compiègne, Salle des Fêtes.   (From photo.)

the Ecole de Médicine, also in Paris (1769–86), by Gondouin, with an
entrance colonnade of Ionic style and a peristyle court with inner
façade.

It is an interesting fact that Napoleon's love of classical antiquity
gave a strong impulse to the new classic movement not only in France
but elsewhere.   This stage is marked by the semi-literary dominance
of the teachings of Percier and Fontaine, whose systematic work fol-
lowed and codified the exploratory labors of the men of the eighteenth
century in very much the same way as the text-books of the purists

of the sixteenth century, Vignola, Palladio and Serlio, followed the freer individualism of the early Renaissance. The analogy is curiously carried out in certain particulars. For instance, the fifteenth and sixteenth century artists were partial to triumphal arches: so were these neo-classicists of the second generation. The Arc de Triomphe de l'Étoile, by Chalgrin, and the Carrousel arch, by Percier and Fontaine, in Paris: the Arco della Pace in Milan, by Cagnola, were progenitors of quite a series. There was a riot of temple façades for churches and secular buildings, such as St. Vincent de Paul in Paris, the Palais de la Nation and the Théâtre de la Monnaie in Brussels.

In Germany the almost purely Hellenic note was struck in 1788 by K. G. Langhans in the Brandenburger Thor in Berlin (Fig. 843), a severe Doric structure in the form of propylea with flanking colonnades, to which the revival of the classic forms of sculpture under

843—Brandenburger Thor, Berlin. (From photo.)

Schadow made it possible to give a harmonious plastic decoration. After an interruption caused largely by the Napoleonic wars there set in a current of neo-Hellenism between 1820 and 1850 with a northern centre in Berlin and a southern centre in Munich, which made of Germany the standard bearer of the style. The Hauptwache building in Berlin, begun in 1816 by Schinkel, not only marked the abandonment of the medieval manner practised until then by this leading architect, but opened a series that multiplied with rapidity. Schinkel's own Royal Theatre in Berlin followed shortly, in 1818. He used here the Ionic temple style in his façade in place of the Doric of the Hauptwache, and he also adopted Ionic for the internal gal-

leries. In his Altes Museum (1824–28) the long Ionic colonnade of the façade is most effective, but he was less successful in the heavy Corinthian of the central domical hall (Fig. 844). His least successful work is the church of St. Nicholas at Potsdam, a pale reflection of the Paris Pantheon. His contemporary, K. F. Langhans, made a remarkable application of almost pure Hellenic design to the modern

844—Altes Museum, Berlin. (From photo.)

theatre, of which he built a number in North Germany. The Neues Theater in Leipzic is by him. An ambitious neo-classic *ensemble* was planned for Berlin by Stüber, of which only the New Museum, begun in 1841, and the National Gallery, somewhat later, with the extensive encircling colonnade, were carried out. It may be said here that one of the most decorative results of the neo-classic revival and one that may have been contributed by Italy (see Genoa, Campo Santo; S. Francesco da Paola at Naples) was the long colonnade as part of a large composition very much after the common Greek and Roman fashion but one that was not familiar to the Renaissance revival.

Meanwhile a second classic school was founded in the south at Munich by Klenze, under the impulse of a movement of local patriotism that aimed to create a monumental city with unity of style. The result was perhaps the most remarkable group of public buildings put up at one time since the Roman days: it was the first in the city series which was soon to include Paris, Vienna and Buda-Pesth. The Glyptotek, which was built 1816–30, has been criticised because of the lack of cohesion between the central Ionic temple and the body whose central lines are unbroken except for niches with statues reminiscent of the Renaissance. Still it is a fact that such niches were frequently used in Roman architecture. How Klenze reproduced Greek temple

forms, under the spell of the Parthenon, and when free from the necessity of accessory structures, was shown in his Hall of Fame (Walhalla) at Regensburg.　On the other hand, in his Munich Propylæa, he flanks the temple with Egyptianizing towers.　The most successful scheme is the later Hall of Fame in Munich, finished in 1853 (Fig. 845).　In all these works he has abandoned his earlier Ionic for Doric. His adaptation of Roman forms for interiors is shown in the vaulted halls of the Glyptotek; on the other hand, the interior of the Hermitage of St. Petersburg, also by him, with its caryatid gallery, is beautiful and quite superior to the somewhat earlier hall of the Royal Theatre in Berlin by Schinkel, except in the one particular of the latter's charmingly proportioned Ionic gallery.

A lack of building activity may have been what prevented England from having as prominent early works of neo-classicism as France and Germany.　The Adams, Holland, and Wyatt practised neo-classicism before 1800, and Sir John Sloan showed in the Bank of England a splendid type of Greco-Roman design.　Holland applied the Hellenic design to a private residence in Carlton house; Basier applied it to the museum at Cambridge.　The masterpiece of this early group is Smirke's British Museum in London, in pure Ionic, begun in 1823.

845—Ruhmeshalle, Munich.　(From Joseph.)

ERRATUM

On line 16, Sir John "Sloan" should be Sir John "Soane."

On line 18, the word "Basier" should be "Basevi."

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result was perhaps the most remarkable group of public buildings put
up at one time since the Roman days; it was the first in the city

forms, under the spell of the Parthenon, and when free from the necessity of accessory structures, was shown in his Hall of Fame (Walhalla) at Regensburg. On the other hand, in his Munich Propylæa, he flanks the temple with Egyptianizing towers. The most successful scheme is the later Hall of Fame in Munich, finished in 1853 (Fig. 845). In all these works he has abandoned his earlier Ionic for Doric. His adaptation of Roman forms for interiors is shown in the vaulted halls of the Glyptotek; on the other hand, the interior of the Hermitage of St. Petersburg, also by him, with its caryatid gallery, is beautiful and quite superior to the somewhat earlier hall of the Royal Theatre in Berlin by Schinkel, except in the one particular of the latter's charmingly proportioned Ionic gallery.

A lack of building activity may have been what prevented England from having as prominent early works of neo-classicism as France and Germany. The Adams, Holland, and Wyatt practised neo-classicism before 1800, and Sir John Sloan showed in the Bank of England a splendid type of Greco-Roman design. Holland applied the Hellenic design to a private residence in Carlton house; Basier applied it to the museum at Cambridge. The masterpiece of this early group is Smirke's British Museum in London, in pure Ionic, begun in 1823.

845—Ruhmeshalle, Munich. (From Joseph.)

Before 1850 England partly forsook this classic movement, under the influence of the Puginesque wave of Gothic revival, individualized in the gigantic House of Parliament (1840), in which Barry, thus far a classicist, succumbed to Pugin.

In Italy a recrudescence of Palladianism preceded the revival of more purely classical forms and rather dwarfed it. The little church

at Possagno is interesting only because it was done under the influence
of Canova and because it combined the dome of the Pantheon with a
propylæum of Hellenic Doric.   Cagnola's arch at Milan has already
been mentioned.   In the San Carlo theatre at Naples (c. 1825), neo-
classicism dominates, especially in the second story colonnades.   The
Carlo Felice theatre at Genoa, built at the same time (1827), is Doric,
and the Campo Santò in the same city has an impressive colonnade
with a central domical structure *à la* Pantheon.

    Contemporary.—The dominant influence in France of recent decades
has, of course, been the
École des Beaux-Arts,
and as its teaching has
formed the style of the
majority of our promi-
nent American architects,
this influence is better
understood in the United
States than in any other
country outside of France.
Charles Garnier's share in
directing its present ten-
dencies was important.
His masterpiece, the
Grand Opera House in
Paris (Fig. 846), is respon-
sible for much modern
work, especially in detail
and decoration.   At the
same time the over-rich-
ness of his surface decora-

846—Staircase of the Grand Opéra, Paris.   (From Joseph.)

tion has not been gener-
ally followed.   He him-
self gave some far simpler models, as in the theatre of Monte Carlo;
the Gare d'Orléans in Paris, on the other hand, is an example of the
effect of the new metal frame, and the combination with simpler neo-
classicism is shown in the Art Buildings by Deglane Thomas and
Louvet.   It had been preceded by such works as the Reading Room
of the Bibliothèque Nationale in Paris by Labrauste (after 1855),
with its slender columnar supports and domes.

The activity which came to Germany after the successful war with France (1870–71) resulted in nothing new. Romanesque, Gothic and Renaissance were still imitated in church designs and late Renaissance in civil architecture. Rather felicitous, as illustrating a revival of the terra cotta work of Lombardy and North Germany, are such buildings as the Kunstgewerbe Museum in Berlin (1877), by Gropius; and for grandiose planning and bold lines nothing is better than the semi-Palladian Parliament House in Berlin (Fig. 847). For a combination of neo-classic and Renaissance schemes, in a manner followed also in Italy, a conspicuous though unsymmetrical example is the famous "Orangerie" at Potsdam (Fig. 848). In such minor buildings as the large stores

847—Reichstag Building, Berlin, from N. W.   (From Joseph.)

there is a combination of Art Nouveau with metal frames and vertical outlines, as in the Siemens and Halske building in Berlin. The Wertheim warehouse (Fig. 849), also in Berlin, shows the possibilities of a combination of broad glass areas with the vertical lines and broad openings of Perpendicular Gothic. At Leipzic, a city in general far from architecturally interesting, there is yet one of the best planned and most spectacular buildings of modern Germany, the Supreme Court (Reichsgerichtsgebäude), a strictly neo-classic work of 1887–95.

In South Germany, both at Vienna and at Buda-Pesth, the Parliament houses are the buildings that illustrate on the largest scale the planning capacity and the governing stylastic tendencies of the men
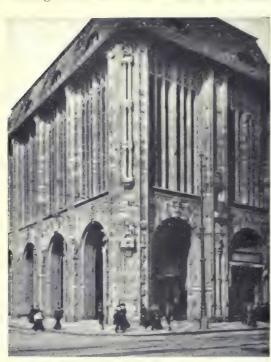
848—The Orangerie, Potsdam. (From photo.)

who were in charge of the architectural renovation of these two cities —two stupendous undertakings. At Vienna the style is almost pure Hellenic; at Buda-Pesth it is Gothic. If an exception is made in mentioning this neo-Gothic work it is because of the originality shown in applying Gothic design.

After the Italian Risorgimento had begun to bring back Italian unity it was, quite naturally, in the north that new Italy first embodied her artistic revival. Its earliest masterpiece, the Galleria Vittorio Emanuele at Milan (1865–77), by the architect Mengoni, is a combination of a neo-Renaissance and a modern steel-frame structure. The enormous tunnel vaults that cover the arms of its Greek cross as well as its central dome are iron frames filled with glass. There is still a

849—Warehouse of A. Wertheim, Berlin. (From photo.)

touch of Barocco in the line of caryatids supporting the main cornice.   A different, simpler note is struck in the imposing façade of almost pure early and middle Renaissance (Figs. 850, 851). . . .

Southern Italy followed in the wake of the north.   The Galleria Umberto in Naples (1887–91) is an echo of Milan.   The imposing University building, also in Naples, by Quaglia, shows how tenaciously Sanmicheli and Palladio were copied.

There are two works, however, in which past formulas are to some

850—Entrance to Victor Emmanuel Gallery, Milan.   (From photo.)

extent disregarded and which represent respectively the latest stage of neo-Renaissance and neo-classic: the Palace of Justice and the Victor Emmanuel monument in Rome.   The Palace amalgamates several middle Renaissance formulas with pure neo-classicism and Palladianism and is both stately and dramatic.   The view in Fig. 852 is the best as showing its peculiarities of composition.   The monument, by Sacconi, while it is a frank adaptation in its upper part, especially the

851—Interior of Victor Emmanuel Gallery, Milan.
(From photo.)

colonnade, of the early Roman temple of Fortune at Palestrina, it is at the same time the most distinctive work of modern Italian design. It dominates Rome more completely than any city has been dominated except perhaps Athens, by the Parthenon: how felicitously it is yet too soon to judge (Fig. 853).

The most significant new ecclesiastical building in England is Westminster Cathedral in London, by Bentley (1895), but since it is frankly neo-Byzantine, it has no place here. The same fact of imitation attaches to the colossal neo-Norman Museum of Natural History in London, to a number of large Palladianesque buildings, of neo-Gothic college buildings, etc.

852—South façade of Palace of Justice, Rome. (From photo.)

There has been no strong current of individualism as yet. In the United States the two vital forces at work are neo-classicism, under the leadership of the Beaux-Arts, and the variety of forms that are made to clothe the steel-frame buildings. Every half decade sees progress toward a satisfactory expression in

853—The Victor Emmanuel Monument, Rome.   (From photo.)

æsthetic terms of the metal skeleton which will probably, when found, be America's contribution to the history of architectural form, a contribution which was predicted some seven years ago to the writer by Auguste Choisy, the most scientific of modern historians of architecture. When irrelevant traditional standards of proportions and decorative details shall have been substituted by relations and forms that grow naturally out of the constructive lines, the solution will be at hand.

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